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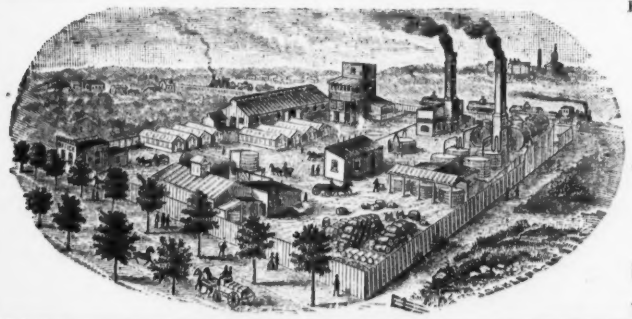

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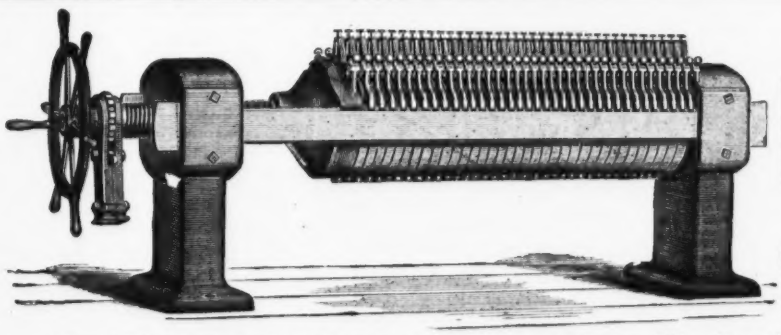

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WEDNESDAY, SEPT. 26, 1888.

LEADING TOPICS THIS WEEK.

The Embryonic Tariff Bill.
Another White Lead Combination.
Concerning "Boston" Opium.
Opposing Oil Fuel.
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The Advance in Tallow.
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WEEKLY REVIEW.

Money remains quoted at about last week's figures for call loans, though the market is stiffer from several causes, viz.: the movement to the interior, the Treasury bond purchases' the increase in speculation and the condition of the London money market. Call loans are 1½@2½%. Time loans are firm, though money is not plentiful: Rates may be quoted as 3 per cent for thirty days' loans, 4 per cent for sixty days, 4½ per cent for ninety days, and four to six months loans at 4½ to 5 per cent. The supply of commercial paper is abundant but the demand is very light. We quote 60 to 90 days indorsed bills receivable at 5¼@6 per cent, first class four months' commission house names at 5½@6¼, and good single names—jobbers—hving four to six months to run at 6@7½%. Following are the rates of exchange on New York: Savannah, buying ¼ discount selling ⅜ discount to par, Charleston, buying 3-16@¼ discount selling par. New Orleans commercial, $1@1 22 per $1,000 discount; bank par. St. Louis, 50@75c per $1,000 discount. Chicago, 60c per $1,000 discount. Sterling exchange is heavy.

Sterling, 60 days, nominal	$4 85	@
sight, nominal	4 88½	@4 89
60 days, actual	4 84	@4 84½
sight, actual	4 87½	@4 88
Cable transfers	4 88½	@4 89
Commercial, 60 days	4 83¾	@4 83½
Paris, 60 days	5 23¼	@5 23⅛
sight	5 20⅛	@5 20
com., 60 days	5 25⅛	@5 24⅜
com., sight	5 21⅛	@5 21¼
Antwerp, 60 days	5 25⅛	@5 25
Swiss, 60 days	5 23⅛	@5 23⅛
sight	5 20⅛	@5 20
Reich marks (4) 60 days		94⅝@94¾
(4) sight		95⅝@95⅛
(4) nom., 60 days		94½@94⅝
(4) com., sight		95 @95⅛
Guilders, 60 days		40⅛@40 3-16
sight		40 5-16@40⅜
com., 60 days		40@40 1-16
com., sight		40 3-16@40¼
Copenhagen, Stockholm and Christana, Krona, 60 days		26⅝@26 11-16
sight		26⅞@26 15-16

THE EMBRYONIC TARIFF BILL.

The public has been assured from time to time that the tariff bill being prepared under the direction of the Senate Committee on Finance would be ready to be submitted in a week, and at the expiration of that time there was always some reason why a further delay was necessary. We are now assured that the sub-committee which has in charge the preparation of the tariff bill will report that measure to the full committee during the present week, probably not later than Thursday. As the members of the committee have at length set a day on which this bill shall be delivered, there may be some reason to expect that the public ere long will be given an opp ortunity to judge of the merits of the measure. It is argued that as it took nearly seven months to complete the Mills bill, four months is not too long a time to be engaged on the substitute. If the bill is reported to the full committee this week, it will require at least two weeks' consideration in committee. It would then be well on toward the middle of October before debate on the bill could commence in the Senate. The approaching election will make a recess necessary, as a quorum can not be secured in either house during the closing days of the campaign. The care with which the bill is being prepared gives promise of a measure that will at least have the merit of accuracy and consistency. It is stated that Senator Aldrich is writing the report which is to accompany the bill, and that he will embody in it a thorough analysis of the Mills bill. It is estimated that the Senate bill will make an average reduction of duties equal to that of the Mills bill, but they will be made for the most part on articles not produced in this country. Some duties will be raised to correct inequalities and inconsistencies. Many of the changes in the bill will appear as reclassifications—changes that were urgently needed. The subject of *ad valorem* duties has received much attention and the bill will include almost the exact text of the undervaluation bill as it passed the Senate. It is said that the mass of evidence taken by the committee, and which has been fully reported by stenographers, will be given in a volume of over 1,500 pages when the bill goes to the Senate. This mass of tariff literature will include tables of statistics, carefully prepared statements of the different tariffs on given articles, and other matters of importance having a bearing on the subject. Altogether it will be a volume of interest and value to everyone interested in tariff matters. From all the hints and scraps of information dropped by members of the committee the curiosity to see the text of the bill has been whetted to a degree that makes us impatient of further delay. We are led to expect a model tariff bill with few blemishes, and we trust that the expectations will not be doomed to disappointment by misplaced confidence in fair promises and assurances of proper consideration of the interests which fared so badly in the Mills bill.

ANOTHER WHITE LEAD COMBINATION.

For months past the condition of the white lead trade has been most unsatisfactory, not only to the corroders, but to jobbers and distributors generally, prices having been so cut down by excessive competition that it was almost impossible for any one handling the product to make a profit. The dealers had cause to complain because the corroders, finding competition among themselves the ruin of profits, invaded the jobbers' territory in many instances. The corroders finally became convinced that an open market was not an unmixed blessing and for some time past there has been a gowing desire to replace the unsettled and generally unsatisfactory condition of trade by a uniform method of doing business on the basis of a fixed uniform price. In this desire the jobbers heartily concurred as was evidenced by the action recently taken by the National Wholesale Druggists' Association, which body represents a large number of prominent dealers located in all sections of the country.

Having arrived at the conclusion that some form of agreement was necessary for the cure of the evils besetting the trade, the corroders were confronted with the difficult task of selecting a plan that would give general satisfaction. Previously tried forms of combination, having been found wanting in effectiveness were cast aside, and for more than a month past, a number of the most influential members of the trade have been at work on a scheme which they have at length perfected, apparently to the general satisfaction. Meetings have been held at various corroding points for the purpose of securing the co-operation of the corroders of different localities, and though much opposition was encountered at times, owing to the repugnance of some of the larger corroders to the relinquishing of their absolute independence, the final result was all that could have been desired by the originators of the plan. On Friday last the final meeting was held in this city and the work of organization completed. What the details of the plan are cannot as yet be learned, owing to the reticence of those who are parties to the agreement. In a general way it may be stated that a uniform price has been fixed, the subscribers binding themselves to faithfully observe the compact for the term of one year from the date of the meeting.

It is understood that every firm of corroders in the country was represented and that the agreement was signed by all with the exception of one prominent house in this city, one in Boston, and several of the minor concerns. In the case of the first mentioned much pressure was brought to bear to secure their signature, but they refused to be so bound, though agreeing verbally not to sell below the combination price, and being a house of the highest standing, there is no reason to doubt that they will keep faith in the matter. The others, it is expected, will ultimately sign the agreement, their reasons for holding off now, it is understood, being such as may be readily removed. According to the agreement the price has been fixed at seven cents in lots of five hundred pounds and over, less a discount of two and a-half per cent. for cash in fifteen days, with a rebate of half a cent per pound if paid within sixty days and an extra rebate of a quarter of a cent per pound to buyers of a total of ten tons during the year, irrespective of brand, the latter rebate being payable on July 1st and December 31st, provided deliveries of the requisite quantity have been made prior to those dates.

The reticence of corroders regarding the details of the plan adopted has given rise to the impression in some quarters that the White Lead Trust has absorbed all of the outside concerns with the exception of the several above referred to. This view is, we believe, incorrect and unwarranted, if only because of the well known antipathy of some of the larger houses in the West to the Trust or any form of combination that would compel them to relinquish proprietary interest in their respective brands. We have reason to believe that, while not a part of the Trust, the new association has agreed to work in harmony with that body, and that the officers of the latter have given substantial assurance that there will be no friction between the two organizations, originating through any action of the Trust.

If the new agreement is faithfully observed by the corroders it will be of inestimable advantage to jobbers who are now pretty well convinced that unrestricted competition is not productive of as beneficial results as a uniform and established price for all brands of white lead. It will be for their interest to discourage any attempts on the part of corroders to cut prices, if such a thing is possible under the terms of the new agreement.

CONCERNING "BOSTON" OPIUM.

With commendable pride in their reputation Boston wholesale druggists object strenuously to anything that will cast, even remotely, a stigma upon their character as straightforward honorable business men. Trade usage has tacked on to a certain grade o opium which does not meet the requirements of a first-class article, a title which the Boston druggists believe is a reflection upon them, and at the recent convention of the N. W. D. A. at Saratoga the mention of this title in connection with the report of the committe on drug market, brought out an earnest protest from the representatives of the drug trade of the Hub, against the further use of this obnoxious term —"Boston opium." From their standpoint it may well be understood why they should object to having the name of their city used to designate a very inferior article of commerce, but the trade generally, while regretting that a reflection may seem to be cast upon their Boston brethren by the retention of the title, will hardly consent that it should be abolished.

This particular grade of the drug is known and recognized all over the country as "Boston opium," having been so distinguished for very many years. Any attempt to replace this title by some other that will be free from the objections now urged against it, would be likely to cause complications that would be detrimental to all interests, and cause no end of trouble in making a clear distinction between this grade and the ordinary drug.

The jobbing drug trade of Boston is probably in no wise to blame for the selection of the distinctive title, but there is strong presumptive evidence that "Boston" opium would never have been known as such had it not been first introduced to the country through that port, by some of the importers, but the circumstances under which it was so introduced being now somewhat obliterated from the minds of the trade by lapse of time it is practically impossible to fix the responsibility. It is unfortunate for the drug trade of Boston, but it looks very much as though the name had come to stay, for even though the druggists of the country in convention should resolve to drop the name, and adopt some other, it would still cling if only for the reason that common usage has made it so familiar that none other would seem to fit.

The Boston druggists may draw some comfort from the fact that there are much worse grades of opium than that to the title of which they object. It would be better for all concerned if the trade, instead of changing the titles of "Boston" opium, "pudding" opium, "stuff," &c., would resolve not to handle any of these grades, but if they are to be dealt in at all, it is well that they should retain their distinctive titles, even though they might be misunderstood as casting reflections upon the honesty of some portion of the trade.

In a subsequent issue we hope to be able to present some further information regarding "Boston" opium, the various tests in use for the determination of the morphia strength of opium, and some other particulars, which will be found interesting reading and valuable knowledge for those of our readers who are not thoroughly posted in these matters.

THE LINSEED OIL MARKET.

An important change for this season of the year has occurred in the linseed oil market. Notwithstanding the fact that new crop oil is being marketed and seed is arriving freely at Western centers, the price of oil has been advanced in this and other markets and a difference of two cents per gallon made between domestic and Calcutta. Until last week the last two mentioned were on an equal basis as the supply of domestic was not sufficient to meet the demand. The fact is that a shortage exists all around and the mills are not keeping up with the movement into consumptive channels which is said to be unusually brisk. The firm feeling is expected to continue throughout October as that is one of the best months of the year in the linseed oil industry for active trade, but the closing months of the year may witness an easier feeling as the supply becomes greater. Several firms in the West who slaughtered their oil a few weeks since in the competitive fight, no doubt wish that a portion of it was back, as a handsome margin over the cut prices could now be realized. City crushers were silent spectators of the short warfare and reaped the benefit.

OPPOSING OIL FUEL.

The Chicago Board of Underwriters have taken a stand against the use of crude petroleum for fuel within the corporate limits of that city. That body recently appointed a committee to investigate the crude petroleum fuel question, which committee reported unfavorably mainly for the reason that an inflammable vapor was discovered arising from the samples of oil the committee tested. The report says: "We poured a small quantity of the oil into an ordinary pan, and a lighted match passed within a few inches of it fired the vapors, thus disproving the claim that inflammable vapors arose only from heated oil." Were oil to be used as is coal and in like manner kept in, open bins or tanks, the objection would be wise, but conditions are entirely different. The oil is stored in closed reservoirs remote from the furnace fires, and there is really no more danger from fire through the use of crude pretroleum properly stored and managed than there is from the use of gas, or any other fuel as at present employed. In deciding to insure no property where fuel oil is used the Board has gone too far. The effect will be to drive manufacturers to insure themselves, as the saving made by the use of fuel oil is too great to be checked by the action of the Board of Underwriters. If the Board is convinced that there is danger attending the use of fuel oil the recommendation of rules and regulations to govern the storage and use of such fuel which would insure the safety of its use would be the proper and judicious course, but to refuse to insure property where such fuel is used without regard to surrounding conditions is a course that is not creditable to the Board of Underwriters and will certainly result in loss to the insurance companies.

We remember when refined petroleum was being introduced as an illuminating oil the prejudice that existed and the restrictions that some of the insurance companies imposed, but the use of the new oil grew rapidly in spite of the restrictions. When natural gas was first introduced the insurance people refused to insure buildings where it was in use, but other companies found it profitable to take the risks and natural gas became popular wherever obtainable. And so will the use of fuel oil. Show the manufacturer that he can make a saving of thirty per cent. in the cost of fuel by the substitution of oil for coal, and the fact that the insurance companies refuse to take a risk on his property will merely cause him to take precautions against fire that the new fuel may, to him, seem to be necessary, and he will use the more ecohomical fuel, insurance or no insurance. Petroleum fuel has come to stay, and the attempt of the Chicago Board of Underwriters will prove impotent to stay its use. Large manufacturers take kindly to it. The use of fuel oil in Chicago has almost revolutionized brick making, all the larger kilns now burning oil. One steel works in that city is using about 1,400 barrels a day and will not go back to coal. In several of the large iron works where coal is still being used the subject of a change to the more economical fuel is under consideration, and it is possible that the stand against fuel oil taken by the Board of Underwriters may postpone decisive action for a time, but the change will come, as with coal they will be unable to compete with their more enterprising competitors who use oil under their boilers. Fuel oil has a big future before it, which the action of the insurance men may retard in Chicago, but the most economical fuel is sure ta prevail.

THE HIGH PRICE OF TALLOW.

Tallow has reached the highest market price since the summer of 1885, being quoted at five and a-half cents per pound for hogsheads and half a cent more for choice quality. Very low values have been the rule for about twelve months until recently, owing to a depression which the average trader thought had come to stay. But the supplies gradually fell off, on account of the marked decrease in the number of cattle slaughtered, owing to devastating storms in the West last year. Shrewd buyers took advantage of the situation and their large purchases assisted to improve prices in addition to reducing available stocks. The buying on speculative account while comparatively small, was considered an important factor in elevating prices, but present holdings are insignificant, as considerable stock has been released to fill pressing orders from abroad. There has been a noticeable increase in the demand for choice tallow at the highest figure to fill a new consumptive want, which is now being developed and may have an important bearing on the market in the future. A scarcity of all grades is also reported in England and elsewhere on the Continent, where American tallow continues to command attention in preference to the local product. It is believed that large consumers, here and abroad, are well supplied, as the movement is light at the advanced prices; but the feeling is still sensitive, and it would not be surprising to see higher values. During October at least the firmness is expected to continue, but beyond that time traders will not venture an opinion. Greases of all kinds have sympathized, but not to a corresponding extent.

THE WHITE LEAD SWINDLER.

A correspondent of the REPORTER has taken an interest in the expose of the white lead swindler and volunteers some information, which will be found of considerable value to the victims of the confidence operator. He confirms the published reports and states that the portrait presented in these columns two weeks ago is an exact representation of his appearance. After detailing a part of this fellow's checkered career, our correspondent offers his services in bringing him to time and believes that the much-wanted individual could be located on short notice. This is an excellent opportunity to apprehend one of the most skilful sharpers of the age, and white lead manufacturers would be doing the public at large a lasting benefit by combining their efforts in this direction. It is not necessary to wait until another crime has been committed. If he can be found there is sufficient evidence to retire him from public view for a number of years, and according to our correspondent he can be captured without much difficulty. It would appear that his downward career started in Canada, where he served a term in the penitentiary for drawing sight drafts on white lead and varnish houses. He is said to be in the United States and quietly prospecting for other victims, but the full particulars of this interesting case will be found on another page.

BOX AND CARTAGE A FAILURE.

The drug trade has doubtless heard the last of the box and cartage question, it having been finally disposed of at the Saratoga meeting of the National Wholesale Druggists's Association by the adoption of an advisory resolution presented by Mr. Hinchman, to the effect that the drug exchanges throughout the country recommend the collection of the charge for boxes and cartage, and that they also use their efforts to make the practice general.

This is the final gasp after a death struggle of twelve months, during which time a special committee labored hard to prevent the inevitable result by missionary efforts in New York and Boston. Jobbers in the latter city were satisfied to restore the charge for cartage, but hesitated when asked to complete the agreement by including packages, and the stumbling block thus encountered proved to be a good excuse for New York parties who were never enthusiastic over the scheme, to refuse their support. The report of the special committee acknowledged a complete failure in the attempt to revive it, and if the drug exchanges can accomplish better results, they have a monumental and very discouraging task before them. But as New York has no drug exchange, it is not interested in this form of competition which appears to give so much annoyance in the West.

STRENGTHENING THE REBATE PLAN.

The additional powers given to a special committee on proprietary goods by the Druggists' Association will have more effect than any executive work yet attempted, in preventing violations of the contract plan. It has been found difficult to get at bottom facts by correspondence, although Chairman Kline has written fifteen hundred letters on rebate matters and sent out twice that number of circulars during the year. More effective means have been found necessary for investigating violations, and hereafter one or two men will be kept on the road to do detective service and secure evidence at the expense of the association. Proprietors selling preparations under the contract system are requested to refuse supplies to any party whom they find, on full investigation, to be wilfully and systematically violating the contracts of other houses. This resolution provoked considerable discussion, and it was opposed because such an action might leave a basis for litigation, but Mr. Kline explained to the satisfaction of everyone that this course shall only be taken when he has in writing the authority from each proprietor to act in his behalf in this direction, and every proprietor has a right to do with his goods as he pleases.

It was also decided to omit from future official lists of rebate articles the preparations of all proprietors who continue to furnish supplies to parties found guilty of violating any contract. In addition to these precautions, a new clause is to be inserted in contracts providing that hereafter each purchaser of contract goods shall agree not to sell any of the articles so purchased to any party known to have violated a contract. The association has thus reaffirmed its position by strengthening the hands of the proprietary committee, and in return the active workers declare that the plan must and will be continued, at no matter how great expense of time and labor. They justly claim that the necessity for a continuance of the feature to protect business from being conducted at an absolute loss is so manifest, and the conviction that proprietors cannot return to former methods is so apparent, that a heroic remedy must be applied to prevent encroachments. Faith in its usefulness has not diminished in the least, but on the contrary it possesses greater strength than ever before in rebate history.

CO-OPERATING ON PARIS GREEN.

President Kelly, of the National Wholesale Druggists' Association, informs the REPORTER that he has appointed Messrs. M. N. Kline, L. H. Harris and James E. Davis to serve again as the special committee on Paris green with the object of renewing the arrangement now in force. They have given the subject considerable study and are in possession of facts which will benefit the Paris Green Association and the jobbers, in case of necessity. It is desired to renew the obligations among the manufacturers as the working of the plan has given entire satisfaction, and the co-operation of the druggists is deemed necessary to prevent friction. One result which merits prominent mention is the fact as stated in the report of the committee, that no adulterated green is made or allowed to be sold under penalty of loss of rebate by offenders. In a communication addressed to the N. W. D. A. by President Molineux, of the Paris Green Association, it is stated that unless all manufacturers are pledged under forfeiture to maintain one quality, one price and terms of sale, no protection can be assured to any one interested in fair business, and it may be said that this represents the line of policy to be pursued. Substantial assistance may be expected from the committee, and there is every hope that a more prosperous year will be experienced.

ENTERTAINING THE DRUGGISTS.

As the question of entertainment has been settled to the satisfaction of the members of the National Wholesale Druggists' Association, whose experience as guests of the committee on arrangements was both pleasant and profitable, it may be of interest to compare the Saratoga affair with those of previous years conducted on a more expensive scale, but lacking in variety. As a matter of fact the excursion to Mt. McGregor and the carriage drive at Saratoga were additional features to the customary programme, the expense of which was met by limiting the cost of other entertainments. The entire outlay this year did not reach two thousand dollars, or less than ten dollars per capita for the two hundred guests, including ladies, and first-class enjoyment was furnished, as every one who participated will acknowledge. This was quite a departure in economy from the experiences of previous years, when the New York entertainments cost $7,500, the Philadelphia hospitality $14,000, and Boston people entailed an expense of about $9,000. The floral decorations at the receptions and banquets of former conventions made a large item, but their absence on the last occasion did not interfere with the social enjoyments. The gentlemen having the arrangements in charge also displayed excellent judgment in the selection of programes, souvenirs, the banquet menu, etc., and made it unnecessary to engage public halls by arranging with the hotel for accommodations.

It is not the intention to reflect on the creditable management of other entertainment committees who had unlimited funds at their command, but to point out the necessity of adhering to the present plan and improving it if possible, so that a few members will not be burdened with the trouble and expense of entertaining the association and visitors who are not identified with it. A convention which offers everything free except hotel board is always better attended than one requiring every guest to assist in defraying the expenses, but the character of the attendance is certainly in favor of the paid scheme. It places the association on an independent footing, gives a satisfied feeling to the participants which could not otherwise be had, and induces leading firms to send several representatives at their expense. The former custom of entertainment prevented this as it would be considered an imposition on the liberality of the hosts to have any one house represented by more than two persons. There need be no limit to the attendance hereafter if the present plan is continued, and as it has met with unanimous approval, it is safe to say that the association will never return to the former practice. But in order to make a financial success of the social features each year, it may be necessary to provide a fund in advance, as the committee can work more intelligently and satisfactorily with the knowledge that the expenses have to be limited to a certain amount.

The REPORTER would suggest that the annual dues of the three hundred and fifty members be increased ten dollars each to cover the necessary outlay for this purpose, and that the gentlemen arranging the details be allowed to exercise their own judgment regarding assessments for the ladies, as they depend upon the nature of the entertainments to be given. There can be no reasonable objection to paying the increase as the benefits derived from the meetings more than compensate for the small sum expended. The members are protected from hostile legislation through the influence and labor of the proper committee; they are favored with a thorough review of the drug market; adulterations are exposed and prevented; credits and collections are regulated to suit the majority; the commercial traveler system is improved; better freight rates are procured; the rebate system is protected; fraternal relations are made more lasting, and many reforms are inaugurated which would otherwise be neglected. In fact the leading position occupied by the wholesale drug trade in the United States is owing in a large measure to the success of the National Association. Without it business would be in a chaotic state and harmony would be a foreign element. The observance of the contract plan has accomplished remarkable results and this feature alone is worth more to the members than they have paid into the association since its organization. The absence or presence of a member at the annual gatherings makes no difference in the final result—he receives the benefit all the same, and although not a participant in the discussion, the action taken directly or indirectly concerns his business and it receives a corresponding benefit during the ensuing year. We doubt if there is a single active or associate member of the association who will not acknowledge that his connection with such a representative and influential body of merchants is worth to him individually at least one hundred dollars each year. Under such circumstances there should be no hesitancy in increasing the dues sufficiently to cover necessary expenses.

Now a word about the social features. It has been said recently and by several persons that the entertainments should not occupy such a prominent place; that the members assembled for business and had no time for pleasure. It is a great mistake to discourage fraternal relations and devote the time exclusively to the consideration of commercial topics. Besides the recreation necessary to tireless toilers, the short season ought to afford an opportunity for making new acquaintances, renewing old ones and entertaining the ladies who manifest their appreciation of the kind favors by attending every year and bringing others with them. The Indianapolis committee of arrangements will doubtless follow their predecessors in providing ample entertainment next September, as that city is the native place of the association and its fifteenth birthday will not be allowed to pass without proper celebration. Sociability is one of the foundation rocks of the organization and to it is due much of the harmonious action in the drug trade; to remove it would be disastrous, and every member should realize the necessity of protecting it against encroachments.

This opinion is shared in by President Kelly who is on record as suggesting that the social side of these annual meetings be sedulously cultivated. He thinks it is the most charming feature of these occasions that even busy druggists can, for the time, leave out of view contracts, rebates, box and cartage, and other questions important in their place, and with pleasure and pride present to their business friends those treasures of home and heart which make all these wearinesses seem but a pleasant dream. Ex-President Cutler also says that "first in order and importance is the formation and extension of personal acquaintance and good fellowship, in learning to believe, to confide, to honor one another, in short in all that tends to make us more considerate, more trustful and more manly." Secretary Merriam in refering to the good fellowship existing between this and other associations says it cannot be otherwise when we consider the maturity of the N. W. D. A.—now in the fourteenth year of its existence—with an intelligent membership, representing a leading commercial interest in every large business center of the country; the progressive advancement in all the departments of trade, as shown in the official reports; the result of thoughtful consideration of intelligent minds; the immense aggregation of capital represented; the high social position and notable business integrity of its members.

Finally, the preamble to the constitution and by-laws recognizes the chief aim to be in creating a permanent social feeling between the wholesale druggists of the country—to obliterate the feelings of distrust and jealousy that seem to exist and to correct excessive and unmercantile competition.

TRADE ITEMS.

Messrs. H. Wm. Dopp & Son, the manufacturers of soap machinery, have a very attractive exhibit at the Buffalo Exposition.

Mr. Peter Van Schaack, who is first vice-president of the N. W. D. A., remained in New York several days before his return home.

Messrs. Hance Bros. & White, of Philadelphia, were awarded a gold medal at the Detroit Exhibition for excellent pharmaceutical preparations.

Mr, James M. Farr of Powers & Weightman, has returned to his desk after a delightful vacation of one month in the Adirondack mountains.

Peter Wright & Sons have purchased the menhaden fishing steamer Mary Morris, and will convert her into a steam lighter for wrecking purposes.

It is rumored that about 3,000 tierces of American lard are being shipped back from Hamburg to this country, the recent advance here allowing of its return.

Mr. Louis J. Levick, of the oil firm of Crew Levick & Co. and of the Pennsylvania Oil Company, arrived home last week from a business trip of two months in Europe.

A paper barrel, which is said to be strong, durable and absolutely liquid proof, and which can be used for storing or transporting all kinds of liquids, is the latest invention.

Packard & Burrill, manufacturers of brushes at Boston, have made an assignment. They have been in business many years and failed in 1876, settling at 20 cents on the dollar.

Mr. David Engleman, of the firm of Engleman & Bellinger, Schenectady, N.Y., manufacturers and dealers in paints and oils, is in the city to purchase supplies. He reports business good.

Raoul Dufresne, wholesale dealer in paints and varnishes at Montreal, has made an assignment. In April he claimed assets, $36,873, and liabilities, $11,637. He has been in business five years.

The Sea Queen (bk whaler, of New Bedford), which arrived at Mayhe (Seychelles) in distress, has been dismantled and sold at auction for £1,000. The cargo of sperm oil will be forwarded to England.

At Grand Mound, Iowa, Sept. 18, about 12 M. the interior of Schlarb's drug store was found on fire and the flames spread, consuming the drug store and contents. There was an insurance of $800 on the building and $1,500 on the stock.

Mr. E. A. Bigelow represented J. C. Ayer & Co., of Lowell, Mass., at the convention in Saratoga of the National Wholesale Druggists' Association and not D. Jayne & Sons, as erroneously reported by the stenographer of the proceedings.

The State Farmers' Alliance Sept. 14 filed with the secretary of state at Austin, Tex., a charter creating a company with a capital stock of $250,000 for the purpose of putting up mills at Dallas to manufacture cotton bagging and cottonseed oil.

The Dover Glass Works Company, at Dover, Del., is advertised to be sold out by the sheriff. Judgments aggregating $33,718 have been entered against the concern. The company began business in September, 1884, with a paid in capital of $17,500.

The board of managers of the Produce Exchange have decided to close the daily sessions hereafter at 2:15 P. M. Saturday sessions will close at 12 o'clock as at present. This step has been taken in unison with the Chicago Board of Trade.

The Thayer & Judd Paraffine Works at New Bedford, Mass., and the tack factory adjoining, were sold at auction Sept. 19 for $1,875, to Chas. W. Sibley, of Boston, who is said to represent Providence parties. There is a mortgage on the property for about $27,000.

The removal of the Libbey Glass Works from Boston, Mass., to Toledo, O.—now a leading natural gas city—is one of the events of the year. The new factory covers four acres. The main building cost $50,000, and fifty car-loads of machinery were shipped from Boston.

The board of health of Paterson, N. J., at its meeting last week, decided to allow the two glue factories in Totowa to continue their business under certain restrictions. Some of the people of that vicinity complained that the smells from these factories were detrimental to their health.

Baker's castor oil, as our readers are aware, leads all other brands in purity and demand. "Crystal" and "A.A." have been recognized as standard grades for years and testimonials are not necessary to make known their quality, as the trade at large are fully acquainted with the merits of Baker's castor oil. The article could not be improved upon.

The rebate plan has exercised so much wholesome influence in the wholesale drug trade that Messrs. Seabury & Johnson hope for still better things, as will be seen by their advertisement on page 51 of this issue. They seem warranted in their hopes by the confidence expressed by two of the "fathers of the plan" in its moral possibilities and commercial efficacy.

The steam whaler William Lewis, 145 feet long and 460 tons gross, which has just been built at Bath, Me., arrived at New Bedford this week. She will fit out for the Arctic Ocean and will sail for the Sandwich Islands under command of Capt. Cyrus Maiter. She will go north next season under command of Captain Sherman, now of the steam whaler Belvidere.

Mr. Fred. P. Reed of Reed, Hall & Hewlett, has returned to business from his annual cruise on the coast of Maine. He and his family have been making their headquarters on Spruce Island which is owned by Mr. Reed and located among 365 other islands in the Penobscot Bay. Almost every day for two months they enjoyed a sail in their yacht "Starling."

A stock company has been formed for the purpose of manufacturing paper at Milton, Ore., and Walla Walla, Washington Ter. Three mills will be erected. The incorporators are David W. Small, president; J. B. Mahana, business manager and secretary, and Henry Steinberg. The company will be known as the Walla Walla Paper Mill Company. Its business offices will be at Milton.

Mr. Daniel Myers of Cleveland has sent out the following notice to stockholders of the Dickert & Myers Sulphur Co.: "Referring to Mr. Dickert's assessment of Sept. 4th, and replying to several letters asking whether to pay the assessment or not, beg to say, I will be guided entirely by the advice of my attorneys in Utah. I would advise you give the matte no attention until you hear from me again.

The Velline Soap Manufacturing Company has been incorporated in Norfolk, Va. The terms of the incorporation require the company to begin with not less than $10,000, which may be extended to $200,000. The officers for the present year are: Wm. L. Elliott, president; Wm. R. Barham, vice-president; J. Thomas Peelle, secretary and treasurer; Wm. L. Elliott, John Nicholson, J. Thomas Peelle, Wm. R. Barham and Benton H. Velline, board of directors.

The Liverpool *Journal of Commerce* says: "The formation of a new salt company on a gigantic scale has made such satisfactory progress that its launching may be expected to take place in the near future. Though nothing is definitely known, the capital is expected to reach £3,000,000, and the project has received such a degree of support on all sides as to make its success all but assured. The utmost anxiety is evinced among those connected with this vast trade for the issue of the prospectus, which will, no doubt, be placed before the public shortly."

The sixteenth annual meeting of the Carriage Builders' National Association will be held in the City of Columbus, on Tuesday, Wednesday and Thursday, October 9th, 10th and 11th, 1888. On account of the Ohio Centennial Exhibition being open in Columbus during the session of the Association, and the somewhat limited hotel accommodations in that city, it is deemed advisable that members of the Association who propose attending the Convention should make early application for what accommodation they may need.

Assistant-Secretary Maynard, of the Treasury Department, has notified the Collector of New York that the Department has amended Article 368 of the Customs Regulations of 1884, so as to require in the oath of the merchant appraiser, which is taken at the time he enters upon his duties, the insertion of the following clause at the end thereof: "And I further swear that I am familiar with the character and value of the goods in question." This action is taken to obviate, as far as possible, complaints which are made to the Department of alleged erroneous appraisement of imported merchandise, caused by the appointment of appraisers who are said to be unfamiliar with the character of the merchandise appraised.

The Orphans' Court of Philadelphia was called upon last week to take action in regard to the late Carl L. Jensen's patent for improvement in crystal pepsin tablets, the sale of which for $500 has given rise to considerable controversy. John C. Perry, a creditor of the estate, asked that the assignment of the patent and transfer of the good-will to John Kelly, the purchaser, be enjoined. Judge Ferguson granted an order in the form of a preliminary injunction restraining Mrs. Jensen from making the transfer and Mr. Kelly from paying the purchase money. A citation was also granted on the parties in interest to show cause why the injunction should not be continued. This was made returnable on the 29th of this month.

The Philadelphia Board of Trade has adopted the following resolution on the death of Mr. J. P. Wetherill, whose obituary was published in last week's issue of the REPORTER. "It is with deep sorrow that the Philadelphia Board of Trade has received the announcement of the death of John Price Wetherill, who for many years has been one of the most active members, one of its Vice Presidents, and also one of its delegates to the National Board of Trade. Mr. Wetherill, by his broad and liberal education, was well qualified to take part in all forms of civic affairs, and as a merchant, Councilman, Director and manager in our financial, commercial and benevolent institutions his career was marked by those sterling qualities which give priceless value to public services. As a friend he was affectionate, cordial and truthful, and he was always ready with heart, hand and purse to do good to his fellow-men. He leaves a record in this city which is full of honor to his memory, which may be profitably remembered by his associates for keeping them in faithfulness and which is worthy of study and imitation for those who are preparing for the active duties of life and business."

PETROLEUM NOTES.

The old McGugin gas well, the pioneer well in Washington county, Pa., is "played out."

Van Wert, O., is still at work drilling for gas and it is thought will soon get enough to supply the town.

The Berea Grit Oil and Gas Company, of Cadiz, O., has been incorporated by M. J. Brown and others. Capital stock, $20,000.

Another well is being located at Sparta, Ill., and this time the attempt will be made east of the first well, to strike gas or petroleum.

The Coulterville Oil and Gas Company, of Coulterville, Ill., has been incorporated by John R. Denier and others. Capital stock $20,000.

It seems to be a settled fact that the gas fields of Maumee and Waterville, O., are failures. Wood county, however, is said to have enough gas to supply all demands.

The bark Vesta, from Perth Amboy for Konigsberg, with petroleum, was in collision with another vessel Sept. 4th in the same roads at Isinore. The Vesta sustained slight damage bove water and proceeded on the 5th.

Work was commenced at McKeesport, Pa., on Monday, at drilling the well of the Black Oil Company 400 feet deeper, in search of gas or oil. The well has been flowing two and a half barrels of oil per day constantly since it was drilled.

Theodore and Frederick A. Haight, comprising the firm of Theodore Haight & Co., stock and petroleum brokers, are reported assigned, giving preferences of $500. The business has been established several years and a capital of $ 0,000 was formerly claimed.

The Pittsburg Committee of Freight Agents met last week and advanced the rate of oil 1½ cents per 100 pounds from Pittsburg to Mississippi river points, to correspond with a like advance from Oil City, Franklin, etc., to the same place. The new rates will take effect October 1.

At Lima, Ohio, last Thursday, while workmen were engaged burning refuse oil accumulated in a pool on the Garvey leases, southwest of the city, fire was communicated to the tanks and derrick, which were destroyed, together with the machinery and a large quantity of oil. Loss $3,000.

At the Consolidated Stock and Petroleum Exchange a petition, signed by four hundred of the active members, has been presented to the Governing Committee, asking that the membership be reduced to 2,000. Memberships are now worth $850 each, and such a reduction would be sure to enhance the price of the certificates very materially.

A natural gas company to be known as the Independent Fuel Company, has been formed at Warren, Pa., and is taking out a charter. Its object is declared to be the supplying of Titusville with natural gas. The supply will be taken from the gas fields of Watson and Limestone townships, Warren county and Hickory and Harmony townships, Forest county,

It is announced that, in view of the contemplated visit of the Czar to Batoum, the whole of the foreign residen'ts and workmen there have been ordered to quit immediately. Most of the petroleum factories have in consequence almost ceased work, and vessels which are loading petroleum will, in all probability, have to leave with only part cargoes. It is expected that this state of things will last till the end of October.

The work that was begun on the farm in Southbury, Conn., about a month ago to bore for oil is being continued by the syndicate. The drill has gone down over a hundred feet, the last few feet through a slate ledge. The borings show a dark, oily earth, strongly impregnated with the smell of crude oil or gas. The operators are enthusiastic over the prospects, and even the farmers are so sanguine that oil will be found that they are holding their land at double the value of a month ago.

The *Pittsburg Leader* says the most important transfer of oil property reported in an extended period was concluded last week. It was the sale of 300 acres of territory in the Clarendon district by Thomas Hackett, of Pittsburg, to A. J. Thompson of Olean. There were 26 wells on the tract that have been producing oil for several years, and were remarkable for staying qualities. The price paid is understood to have approximated $60,000 The purchaser proposes drilling a number of new wells on the land, with a view to increasing the output, which of late has been about 2,000 bbls, a month.

A recent cable dispatch said that Sir Frederick Bramwell, the distinguished civil engineer and new President of the British Association, delivered an address on the practical aspect of science, in which he uttered a prediction in speaking of the improvements in the steam engine. He explained that, whereas in Watt's time seven pounds of fuel were consumed per horse-power, nowadays only one and a-half pounds are required, and even now the best engines only obtain one-sixth of the work residing in the fuel. He proceeded to argue that looking at the wonderful petroleum industry, it is not too much to say that there is a future for motor engines working by true vapor—not a gas, but a condensable body. He anticipates that steam engines will some day be seen only in museums as curiosities.

CORRESPONDENCE.

This column is always open for the expression of public opinion, but the REPORTER assumes no responsibility for the views expressed by any correspondent.

How the White Lead Swindler can be Captured.

OTTAWA, CANADA, Sept. 16, 1888.

Editor OIL, PAINT AND DRUG REPORTER:

In your issue of the 12th inst., I notice a portrait of Lazier of white lead and varnish swindling fame. I have noticed also your previous portrait and references to this same party, and was on the point of giving you some information which might assist in his capture when I first read your sketch of the swindling operations. Feeling that I owe the trade a duty in the matter I will now give you a short history of his career in Canada, but will first state my reasons for not doing so before. His father was a respected friend and customer of my own and his friends are all well to do and highly respectable people, consequently I felt a disinclination to inform you of the facts at the time. His name is "Mark" Lazier, son of Jno. Lazier, a mill owner and woolen manufacturer of Belleville, Ontario, Canada. (Where "Mark" can sometimes be found). He received a good education and is a clever young man. I knew him well, and your portrait is an exact representation of his appearance when I last saw him. He served a term here in the Kingston Penitentiary for the same offences viz, drawing sight drafts on white lead and varnish houses which he claimed to represent in Montreal. He jumped from the train on his way to Kingston, when near Belleville, but was recaptured and served his time. You can verify my statements as to his father's position by examining Bradstreets or Dun & Co's. agencies books for Ontario, Canada. He has an uncle also in the woolen manufacturing business in Lonsdale near Napance, Canada, and another uncle in Belleville—Colonel Lazier, also Judge Lazier. I trust this bit of information may assist in locating him. He is married as stated and has children; he is in Belleville at times and I could spot him if necessary, were he to visit his home again. He is at present in the United States, and I feel certain he is the party wanted. I am quite certain that if I got information of any of his drafts being made as stated within 10 days, or 30 at the least, I could locate him, were the State or the parties defrauded willing to pay actual expenses.

W. D. MORRIS,
Managing Partner,
SAMUEL ROGERS OIL CO.

To Detect Adulteration in Oils.

HACKENSACK, N. J., Sept. 21.

Editor OIL, PAINT AND DRUG REPORTER:

My attention was first called to an article in your issue of Sept. 12th, entitled "Detection of Cottonseed Oil in Olive Oil." The method described is quite elaborate and although probably conclusive in its results yet is not one that could be readily made available for practical use in testing oil by dealers and manufacturers.

Allow me to give your readers a method that is simple and perfect to detect adulterations of simple mixtures of various oils or a compound oil made up of adulterations or mixtures of several oils together. And I certainly think it would be a source of profit in a commercial city for some individual or firm (chemists or others) to provide the necessary apparatus and make it a branch of business to give by this method or process the character and constituents (in oil) of such samples as might be submitted to them as experts by their patrons.

The method is based upon the effect produced on various kinds of oil mineral, vegetable or others by being submitted by contact to the action of sulphuric acid. It is a curious illustration of the arbitrary and inviolable laws of nature and their perfect reliability "without shadow of turning" in their operations. Place a drop of linseed oil, for instance, on a surface of glass and put in contact with it a minute portion of sulphuric acid and its effects become at once visible. The oil becomes a thing of life in its movements and contortions, passing through many kaleidoscopic changes both of form and color that are very interesting to witness and finally settling down quietly to a fixed form made up of peculiar appearance in outline and interlineation, but always passing through the same phases and transformations and always resolving itself into the same coloring and shapes when it settles into quietude. Apply the acid to a drop of cottonseed oil and the same lively action takes place, but the movements, the tones, the forms and changeable colors are entirely distinct from the linseed oil, as is also the final figure obtained when the drop of cottonseed oil reaches a period in which the sulphuric acid has exhausted its effects.

So also with other kinds of oil when submitted to the acid under the same circumstances, and an operator can soon learn to determine while the oil is in action from its distinctive appearance, what oil it is, even before it comes to a state of rest.

But more than this—and here is wherein comes in the value of this process as a test of mixture or adulteration—while each oil goes through its marked, uniform and distinctive appearance when operated on singly, yet when mixed together and operated upon there is a compound of identity, and each works its own individuality in such a manner in the compound process that an operator can soon distinguish and name the mixture of oil even while yet in action.

Of course, all this must take place under the observation of a microscope of sufficient magnitude to make clear these very peculiar transformations to the operator. But to get the full benefit of the result aimed at, the whole figure should be thrown upon a screen and then, under proper enlargement, the whole result can be read as from a book.

To make it a business, I should recommend that the camera be brought into use and a photograph be taken of the figure when the oil is finally at rest, colored exactly as shown on the screen, and then each photograph of one or more kinds of oil be labelled.

In that case each merchant or oil dealer, without being an expert, can apply the acid to the oil he desires to test, examine the result with his microscope and then, by his photographs, which are labelled, soon determine at least the kind of oil, either pure or adulterated, he has been testing.

While the foregoing method is only qualitative in its results yet, by a series of experiments, a quantitative analysis could be approximated, but not one clearly definite in its results.

A. C. F.

A New Product with Tannic Acid.

NEW YORK, Sept. 19, 1888.

Editor OIL, PAINT AND DRUG REPORTER:

Will you please answer in the columns of your valuable paper the following questions?

What would be the price of a product that shows by a very careful analysis made by a dealer in dyestuffs, to contain sixty-three per cent. of tannin (tannic acid)? For what purpose can this new product be used? By answering in your next issue you will oblige very much,

J. B. PELLETIEN.

[The letter is too vague for the foundation of an intelligent opinion as to the constituents of the product or its usefulness. The stated amount of tannin is a favorable indication, provided the product is free of objectionable substances which may prevent its acceptance as a tanning material or dyestuff. We have heard of articles containing a large quantity of tannin but which were absolutely useless for the purposes intended on account of other ingredients. By furnishing a complete result of the analysis, with the method used, and a sample of the new product, we could give a better idea of its value and usefulness.—ED.].

CHICAGO LETTER.

Special correspondence of the REPORTER.

CHICAGO, Sept. 22, 1888.

Contrary to general anticipation, there would seem to have been a slight change in the situation of the oil market, so far as prices are concerned during the week. The trust has advanced its schedule from 49@50c to 50@51c, according to the size of orders, whether for 25 or 50-barrel lots. At the same time, per contra, it is rumored that parties not represented in the National Company are offering oil at 50c in quantities to suit purchasers, and it is rumored that some sales have been effected at 49c. It may be set down as tolerably certain, however, that such sales, if made at all, were of small lots to regular customers. This does not militate against the fact that apparently the condition of affairs has been practically reversed since last Saturday. How long it will continue in statu quo is hard to predict.

Two or three theories, all of them more or less plausible, have been advanced by way of explanation of the higher price demanded by the National Co. In the first place, it is said that the appreciation is fully justified by a demand sufficiently active to absorb the entire output of the Western mills about as fast as it can be delivered. Granting these premises, it is not an illogical conclusion that producers should, on ordinary business principles, prefer not to accept 50c when they can just as easily obtain 51c. Again, the reaction in the seed market is said to point inevitably to higher prices for oil until we shall see more liberal receipts of crude material from the Northwest. Crushers complain that they are making no money. Consumers smile grimly at such statements, which, they say, have become familiar to their ears. At the same time, unprejudiced observers, who know whereof they speak, say that with flax at $1 32 there is the barest minimum of profit in selling oil at 51c. A representative of one of the most conservative houses in Chicago, who, I know, enjoys the full confidence of his employers, said to me yesterday that while under any circumstances his house would buy but moderately, just now, his firm was rather inclined to look for an upward market in linseed oil during the next 30 days, to be followed by a drop when toward the end of the next month seed began to arrive with a freedom which would form an abrupt contrast to the receipts of to-day. He added that in his opinion there was "very little money" in oil for crushers at ruling quotations.

All surmises apart, however, there still remain to be considered certain unquestioned facts. The number of mills in operation has not yet exceeded the estimate—two-thirds—sent you last week. The inquiry is abnormal for the season, owing to absolute depletion of stocks in the hand of jobbers and manufacturers, who, by the way, divide the demand between themselves about equally. More mills would run were seed easier to obtain in the market, and it is safe to say, that with freer receipts of seed the increase in the number of presses at work would materially alter the relations just now existing between supply and demand. This is the position for which buyers seem to be waiting. A fact worthy of more serious consideration, however, is this: Western crushers are not in harmony. It is within the limits of possibility that a conflict long deferred may yet have to be brought out, in which the watch word of either party may yet be "each man for himself and the d—l take the hindmost." In the interest of the trade at large—crushers, middlemen and consumers in all sections—it is to be hoped that such a conflict may be averted.

As regards cake, there is nothing new to be said. What little there is in sight finds a ready market, but, as said a week ago, net returns from sales are not of a character satisfactory to crushers. The fact that a further advance in ocean freights is believed to be imminent has not tended to promote stability.

FLAXSEED.

That there should be even an attempted manipulation of the seed market at the present time is absurd, all surmises and rumors to the contrary notwithstanding. Interested parties have even gone so far as to intimate that a certain clique was specially interested in a particular turn of the market. It is not too much to say that all such rumors proceeded from an interested source and utterly lack confirmation. The following statement shows the course of the market all around:

The week opened with 139,613 bushels in store in public elevators. As compared with last week, these figures show an advance of 76,850 bushels, while there are 23,202 bushels more than the entire quantity in elevators one year ago.

Comparative receipts and shipments for 1888 and 1887, as well as for this week and last are shown in the following table:

	1888.		1887.	
	Receipts	Shipments	Receipts	Shipments
Mon.	26,882	32,706	10,303	38,381
Tues.	34,002	30,323	9,925	5,444
Wed	50,410	28,678	36,957	48,860
Thurs.	35,723	43,994	39,082	12,504
Fri.	38,194	28,926	11,700	12,176
Satur.	33,725	37,354	73,271	9,073
Total	217,026	205,981	181,332	126,387
Last week	21,242	152,635	148,162	128,052

The report of the official inspector shows the following:

	Inspected in. cars.	Inspected out. bushels.
No. 1	382	107,526
Rejected	19	4,680
No grade	35	....
Total	416	112,206

The recovery in tone of the market has been a source of some surprise to those who, for want of a better term may be nominated as "bears." Future deliveries have not manifested any marked activity. September has ranged between $1 28 and $1 32 with reported sales of 35,500. In October, the fluctuations have ranged between $1 25½@1 30½ this future closing to-day at $1 29. May sold on Monday (5,000 bushels) at $1 31; 3,000 bushels brought $1 33⅛ and to-day $1 36 was paid for 10,000 bushels. Year sold yesterday at $1 27½@1 28. Yesterday's sales aggregated 10,000 bushels. To-day $1 28 was paid for 17,500 bushels of the same delivery.

A brief review of the course of cash seed in the market for the week may not be uninteresting. Opening at $1 28@1 29 on Monday, it advanced ¼c on Tuesday, touched $1 32½ on Wednesday, receded to $1 31 on Thursday, remained about stationary on Friday and closed to-day at $1 31½@1 32.

From the official reports it would seem that stocks are increasing here. One week ago there were 139,613 bushels; on the corresponding date a week previous only 62,763 bushels were in sight. A year ago public elevators contained 116,411 bushels.

The advance in price is, perhaps, measurably due to a desire to fill contracts Rumor is rife as to a disposition on the part of a certain class of buyers to purchase with a view to supplying passing wants, but this tale cannot be traced to any authentic source.

There was noticeable a disposition to exchange September for October at a premium of two cents for the former. It is needless to draw any inference from this circumstance; on its face, the conclusion is palpable.

Reviewing the market for the week, it seems apparent that prices have been mainly controlled by the speculative element. Buyers for actual home consumption have as a rule been consequently compelled to pay what might, ordinarily, be looked upon as fancy prices.

OILS.

As regards lard oil, prices may be said to be next to phenomenal—85c being the price named to-day by pressers for "strictly extra." Pressers seem to regard the advance as legitimate, in view of the appreciation in lard. The latter they seem to regard as justified by light receipts of hogs. But there is a reverse side to the picture. In some quarters there seems to be a lurking suspicion that receipts of hogs might be increased at any moment; the effect of freer arrivals upon the lard (and inferentially upon the lard oil) market is more or less of a conundrum. Some buyers seem to think that it might result in a decline in both. Such prophets of evil are of opinion that present valuations are more or less fictitious. But, ignoring conjecture and innuendo, there are facts worthy of consideration. Of lard oil of all grades, local stocks are light, for the reason that they are not allowed to accumulate; the high prices demanded for strictly extra has operated to check inquiry and stimulate the

use of mineral substitutes; the disproportion between the rise in the highest and the inferior grades has been the cause of increased sales of the latter. These may be said to be the salient features of to-day's market. If current qnotations are based upon a fictitious valuation, the future will soon disclose the fact.

PAINTS.

September does not appear to have been a specially profitable month with local jobbers. Just why this state of affairs exists one cannot easily decide. White lead has advanced to 6½c (and some corroders hold out inducements to jobbers even at this price); linseed shows a marked appreciation, what, then, is the reason for the comparative dullness in mixed paints? The conundrum remains unanswered, but if one may trust telegraphic reports Chicago is not much worse off in this regard than New York. The fact is that one of the largest corroding concerns in the West has been hailed with satisfaction by jobbers here, who are today disposed to quote the Chicago market for white lead at 6½c, with an upward tendency.

The REPORTER'S account of the Saratoga paint conference has been widely read here. As a whole the city trade is inclined to regard the action of the Saratoga meeting as having been eminently conservative and likely ultimately to result in good.

DRUGS.

The Chicago market has failed to exhibit any startling changes during the past week. In fact it can hardly be said to have sympathetically responded to quotations in the East in any essential feature. With opium at $2 80 in New York, one might not unnaturally expect to pay $2 95@3 00 here; yet some of the leading jobbing houses are freely billing it at $2 85. It seems hardly worth while to enter into a discussion of the situation in quinine, which is not altogether dissimilar from that in opium. In both staples the local market is liable to advance, provided the situation in the East remains unchanged. The general list exhibits a decidedly upward tendency. If quicksilver should advance still further, it would not result in any rude shock. Insect powder is quotable at somewhat lower figures at the close of the (ostensible) season. As regards trade—buyers are numerous; they speak hopefully as to the future and prove their faith by their works—The latter being the placing of reasonably brisk orders.

NEW CORPORATIONS.

The two following concerns have been incorporated here during the past week:

The Chicago Capsule Co., capital stock, $50,000; incorporators, George P. Benton, Herman B. B. Wickersham, and Joseph A. Connell.

The Scott & Jennings Co.capital stock $9,000; incorporators, John Scott, George F. Jennings and John M. Young. The object of the latter cencern is said to be to manufacture and deal in glass. CALUMET.

CUSTOMS DECISIONS.

DUTY ON CHLORIDE OF CALCIUM.

Referring to a communication relative to the classification of certain chloride of calcium imported into Boston by Messrs. J. L. & D. S. Riker, Secretary Fairchild writes that the United States appraiser at New York concurs with the appraiser at Boston in the opinion that chloride of calcium is an article different in most essential respects from the chloride of lime or bleaching powder mentioned in the free-list (T. I., 618), and that it is properly dutiable under the provisions of T. I., 92, at the rate of 25 per cent. ad valorem. Upon an examination of the reports of the appraisers and of the samples submitted, the Department concurs in the above opinion, and the collector is therefore instructed to classify said article accordigly.

ESSENTIAL OILS.

The Treasury Department is in receipt of a letter from the New York Collector transmitting the appeals of Messrs. Lehn & Fink from his decision assessing duty on certain essential oils imported by them per Gellert and Polynesia, October 12, 1887, and February 14, 1888, respectively, and claimed to be exempt from duty by assimilation to various fragrant oils named in the free list (T. I., 553, 555, etc.). It appears that the oils in question are designated by the following names, viz., santal, melissa, vetevert, angelica, geranium, cinnamon, mustard and pine, and that none of them, with the exception of the oil of cinnamon, are named in the free list, and that the last mentioned oil was not subjected to duty, as alleged by the appellants, but was admitted free. The decision, being in accordance with T. I., 92, and the principle enunciated in the Department's decision of January 16, 1888 (Synopsis 8631), relating to certain oil of geranium, is affirmed.

The Peppermint Crop.

Major James B. Horner desires the REPORTER to state that the total yield from 61 acres of the new mint crop of 1888 in Wayne county, N. Y., was 1,672 lbs., making an average of about 27 lbs per acre. He furnished the names of the growers with the amount of territory under cultivation and the yield obtained by each, to substantiate the foregoing statement. He says this information is intended as a reply to previous statistics published in these columns which, he alleges, only compared the new mint of 1887 with the old mint of 1888. Additional figures are expected by him from Wayne county.

MISCELLANEOUS.

National Paint, Oil and Varnish Association.

The following communications were received on Monday and explain themselves:

CHICAGO, Sept. 21st, 1888.

Editor OIL PAINT AND DRUG REPORTER:

I inclose copy of a letter received to-day from Chas. Richardson, Esq., of Boston, which will explain itself. Will you please publish the same in your next issue as a matter of interest to the trade.

Very Respectfully,
G. H. VROOMAN, Sec'y.

BOSTON, September 18, 1888.

To the National Association of the Paint, Oil and Varnish Trades of the United States:

G. H. VROOMAN, Secretary.

DEAR SIR.—I duly received yours of the 11th inst., advising me of my election to the office of President of the National Association of the Paint, Oil and Varnish Trades of the United States.

In reply, would say, I have carefully and conscientiously considered the question in all its bearings. I feel the great responsibility involved in the position, and I had serious doubts whether it was for the best interests of the Association for me to accept the trust which the Association so kindly tendered to me. But after further consideration and consultation with some of the members of our New England Club, I considered it my duty to accept the position.

In accepting the office, I wish to thank the Association for the very great honor it has conferred upon me. I deeply feel its importance, and I assure you that my only desire will be to serve you in such a manner as will always in my judgment be for the entire interests and welfare of the Association.

Very respectfully,
CHARLES RICHARDSON.

The Phosphate Combination.

"What is the Phosphate Trust?"

This rather blunt question was put to well-known dealer in phosphates last week by a reporter for the Charleston *News and Courier*.

"I pass. Give me another card," was the reply.

The reporter thereupon handed to the phosphate dealer the following telegram from Beaufort.

"The Bagging Trust has not troubled the people here very much as but little of the jute bagging is used in this vicinity. But a Phosphate Trust, like the Coosaw Trust, is very much felt by the merchants, as that Trust forces their laborers to trade at least two dollars and fifty cents of their wages per week at the Coosaw store."

"Well, what of it?"

"What is the Phosphate Trust?" repeated the reporter.

"I don't know as you could well call it a trust," replied the phosphate dealer, "although it's a sort of combine. As far as I understand it, three mining companies have formed a sort of combination. These are the Coosaw, the Sea Island and the Oak Point. There is no copartnership but they have agreed to have one general manager, who has the power to sell all the products of their mines. Each company is run on its own account. It does its own mining and gets out as much rock as it chooses, but it can't sell the rock except through the manager. That is about how it is worked. As to the production, I don't think it has been limited. As I understand it the mining goes on as usual, the only restriction being as to the sale. None of the companies can dispose of its rock except through the joint manager. The product of the river mines in this state is sold entirely to Europe. The shipments are almost exclusively foreign. The fertilizer manufactories in this country use land rock almost exclusively, and the land and river rock each stand on their own rock bottoms. I don't think that either of the three companies in the combine ever furnished a hundred tons of rock to an American fertilizer factory."

The phosphate dealer went on to say that, as far as he knew, there was nothing startling to report in the phosphate business. The prices, he said, were about stationary, $5 a ton for crude and $6 for dried rock. There had been no advance in prices recently and the market was very quiet. Whether these prices would advance or go down would, he said, depend pretty much on the demand for fertilizers on the other side of the water.

Immediate Transportation System.

Representative Lawler, of Chicago, has introduced a bill to amend the Immediate Transportation Act, with a view to preventing delay in forwarding merchandise consigned to interior ports. The bill provides: That upon the receipt of merchandise at any of the principal ports, consigned to any inland port of final destination, the Collector at the port of arrival shall allow the whole or any portion of said merchandise to be shipped immediately after the entry has been made. Provided, that when any portion of such merchandise is entered for immediate transportation the remaining portion shall be entered for warehouse or consumtion, according to existing law, at the time when the entry for immediate transportation is made, at the port of first arrival, and it shall be sufficient for the Collector or other chief officer of the customs at the port of first arrival to permit such entry for warehouse or consumption, as the case may be, upon duly certified extracts or copies of the invoice and bill of lading upon which the entry for immediate transportation is made, and such properly certified extracts or copies shall remain with the entry for warehouse or consumption in like manner as original invoices and bills of lading. Provided further, that the copy of the invoice and entry shall, in case any portion of the merchandise mentioned in such invoice is entered for warehouse or consumption at the port of first arrival, have indorsed thereon by the Collector at the port of first arrival a statement showing the date and number of such entry for warehouse or consumption and the number of cases or packages of such merchandise so entered for warehouse or consumption: and it shall be the duty of the collector at such port to immediately notify the Collector or other chief officer at the port of destination of such portion of such merchanuise so shipped under immediate transportation entry of the number of cases or packages shown on the invoice which have been entered for warehouse or consumption.

Salt Trade and the Tariff.

The Syracuse (N. Y.) *Journal* had a talk with Mr. Thomas Gale, a salt manufacturer of Salina, concerning salt and the tariff propositions.

"When I came here, in 1836," said Mr. Gale, "the duty on salt was six cents a bushel. Previous to that it had been twelve cents a bushel and in 1846 it was reduced to one cent, with the understanding that the salt works should sustain themselves and no more. This was done so that there shouldn't be a tax on the people for this necessary of life. But, mark you, since that time we have piled up a surplus of $700,000, which is over and above the expenses to the state of the supervision.

"By the competition of other salt fields the Onondaga product has been reduced from nine millions to six million bushels a year. That six million bushels of salt comes out of a hole in the ground and brings a return to this city and this state of $600,000 a year. It comes out of the ground here. We don't go away to buy the product and then sell it again. We get it right here. If you buy salt of a foreigner, in consequence of taking off the tariff, you get salt that answers the same purpose. But, see here, you have lost $600,000 in each year. You have got the salt, but the English have got your money. When we make the salt the country has got both the product and the money.

"My salt works," said Mr. Gale, "make about half a million bushels a year, the income on which amounts to between $45,000 and $50,000 a year. Bear in mind that this product comes out of the ground here at home. It furnishes to my laboring men $100 a day during the season of manufacturing. I go to New York," continued Mr. Gale, "with a boat-load of salt. There I meet a man from Europe and he has a boat-load of salt. He comes into New York free. Both of us sell to the same man for the same price. Now, then, my cargo has paid a school tax, a highway tax, a poor tax, a law and order tax, a pension tax, a county tax and a State tax. What has the British importer paid? Why, nothing! He carries the money away with him to the land where labor costs half that it does here. I bring my money home, pay my taxes, pay my employes living wages, and improve my locality. The encouragement which we receive in our salt industry is what induces us to manufacture our product. Michigan offered ten cents a bushel premium to any party finding salt water and making salt. That, you see, encouraged manufacturers to go to work, and it has developed in that State the greatest salt interest in the world. They have made as high as sixteen million bushels of salt in a single year. That, I say, is the result of encouraging manufacturers. It is the protection of home industry."

A Foreign View of the Quinine Market.

The cost of making quinine is discussed by the *British and Colonial Druggist*, and the following conclusions arrived at:

The present state of the market for sulphate of quinine is not without interest. That sulphate should be sold at 1s 3½d seems almost ridiculous, when it is remembered that at that figure it is impossible to manufacture it without loss. We have it stated on the best authority that 1s 4d is the lowest price at which the article can be made at a profit whilst the value of bark remains as it is now. Despite the prognostications which are made in some quarters and circulated in others—prognostications which are all detrimental to the prospects of bark--the value is steadily maintained, and all attempts to depreciate it fail. We are always being told of large shipments which are coming forward from Ceylon, but although these are never lost sight of, we seldom hear anything with regard to the stocks existing there, which must necessarily be getting lower every time a shipment is made. The policy of some manufacturers in selling quinine for forward delivery at low price, is one which they may some day have cause to regret. We ourselves cannot see the object of it. Of course, manufacturers may be able to see further into the future than other people, and may possibly be able to foresee such a fall in the price of bark as shall enable them to do more than recoup themselves for the risk they run, but up to the present the power of seeing into the future appears to be confined to themselves, as at each succeeding sale of bark, both here and at Amsterdam, the prices realized are, contrary to what we should be led to expect, fully equal to, if not better, than those obtained at the previous one. Admitting the fact that sulphate cannot be manufactured at less than 1s. 4d. per ounce without leaving a loss to the maker, the sellers at 1s. 3½d. must be losing a considerable amount of money over the transactions. How long they will continue to do so is a question, as we have already said depending either upon the value of bark or upon their willingness to keep on selling at a loss. Doubtless every effort will be made to depress the market for cinchona, and we have already seen a circular issued which was calculated to have that effect (but the only result of which was to momentarily depress quinine), and unless these efforts are successful, it seems almost certain that the contracts recently made at 1s 3½c must in the end result in loss to the seller. Already the steady tone exhibited lately in regard to bark is beginning to make itself felt upon the market for quinine, the latter having become much firmer during the last few days; and it is true that the German manufacturers were unable to fully supply their wants at the recent sales at Amsterdam, the improvement in su phate may develop itself to an even greater extent before the lapse of many weeks.

Lard and Cottonseed Oil.

BY ROWLAND WILLIAMS, F.I.C., F.C.S.

During the past few months I have had very extensive experience in connection with lard adulteration. Our worthy president, having become aware of the fact, suggested that I should write a short paper, supplementary to the note on the same subject which he himself has read this evening.

It gives me great pleasure to fall in with Mr. Allen's suggestion, and I can only express my regret that my remarks must of necessity be very brief. I should have liked to go into the matter much more exhaustively, but time forbids.

Saponification Equivalent.—Koettstorfer's process is quite useless, so far as the detection of cottonseed oil in lard is concerned, as both require practically the same amount of alkali for saponification. This fact will, no doubt, already be so well known to those among you who are regularly engaged in food analysis, that it is, perhaps, almost superfluous to mention it. Determination of the saponification equivalent of lard is, however, occasionally useful, as any great deviation from the normal figure would indicate the presence of some adulterant—cocoanut oil, for instance, which is said to be sometimes used for sophisticating lard.

Melting Point.—The melting point of lard is no criterion as to its freedom from adulteration, as the question of a high or low melting point depends entirely upon the part or parts from which the fat is obtained.

Specific Gravity.—Inasmuch as the specific gravity of pure lard at 212° F. is about 0·861, while that of cottonseed at the same temperature is about 0·872, it seemed possible that the presence or absence of cottonseed oil might be ascertained by a careful determination of the density of the sample at the temperature of boiling water. I have found that a large proportion of cottonseed oil does undoubtedly raise the specific gravity of lard to a moderate extent, but a small percentage affects the result very slightly, so that, according to my experience, no very definite information can be obtained by these means.

Maumene's Test.—As cottonseed oil gives a very considerable rise of temperature when treated with strong sulphuric acid, while pure laed gives only a moderate increase, I applied Maumene's test to several suspected samples with a view to ascertain whether cottonseed oil could be detected in that way but for some reason or other I did not obtain satisfactory results. Even with samples which undoubtedly contained large proportions of the adulterant, Maumene's test has in my hands failed to determine anything like the real extent of sophistication. I understand, however, that a London chemist has found this method to answer fairly well in the case of lards heavily adulterated with cottonseed oil, but for my own part I consider Maumene's test too dependent upon and mode of manipulation and various other circumstances to yield really reliable information.

Iodine Absorption.—This is the test upon which I chiefly rely for the determination of cottonseed oil in lard, in the absence of interfering bodies. By the latter I more particularly refer to stearine, which is sometimes added in rather laege proportion to lard which has been adulterated with cottonseed oil in order to neutralize the softening effect produced by the latter. As stearine absorbs only about one-third as much iodine as cottonseed oil, the addition of a large percentage of the former naturally reduces the iodine absorption of the mixtnre to a greater or less extent. Still, I have rarely found the stearine to interfere sufficiently to absolutely

nullify the iodine absorption test. Out of the numerous samples of lard submitted to me for analysis, all of those which I believe to be genuine (with one exception) absorbed from 60 to 62 per cent. iodine. Most of these lards, I may say, were of American origin. English lard is said to have a somewhat lower iodine absorption, but I cannot speak with certainty on this point. The peculiar sample just referred to, and said to be leaf lard, absorbed only 51 per cent. iodine—a result for which I am unable to offer any satisfactory explanation.

Mr. Allen informs me, however, that a sample of lard prepared from the omentum, which he has just examined, had an iodine absorption of 55·4 per cent. I myself have to-day rendered some lard from the leaf, and this I find, absorbs 51·8 per cent. iodine.

I should like to call your attention to the fact that in "Allen's Organic Analysis" (Vol. II., page 50) it will be found that Hubl himself (who may be regarded as the originator of this test) gives the iodine absorption of lard as 59 per cent., whilst other observers give it as 61 per cent., figures so close to my own as to render the probability of 60 per cent. or thereabouts being the true iodine absorption of ordinary lard, made from the fat of the entire animal. I have found samples of refined cottonseed oil and beef stearine—such as are used for the purpose of adulterating lard—to absorb respectively 110 and 21 per cent. iodine.

Some of the lards which I have examined absorbed as much as 85 per cent. iodine, and I frequently meet with samples having iodine absorptions of 70 to 75 per cent. There can be no doubt whatever about samples such as these being largely adulterated with cottonseed oil. It should be mentioned that lard dealers can detect even small proportions of cottonseed oil by the taste and smell, but it has only recently become possible to prove the fraud by scientific evidence.

Silver Nitrate Test.—Milliau's modification of Bechi's original process for detecting cottonseed oil in olive oil has so recently been described in *The Analyst*, that it is unnecessary for me to give the modus operandi. I have applied the test to a large number of samples of lard, and find it to answer exceedingly well for the detection of cottonseed oil. I have examined the fatty acids, from numerous other oils and fats, all of which have been free from reducing action on silver nitrate. The reaction seems, therefore, characteristic of cottonseed oil.

It is advisable to make a blank experiment with the reagents, as I find even "pure" alcohol occasionally contains impurities which reduce silver nitrate to some extent. The silver nitrate test, although undoubtedly of great value as a means of detecting cottonseed oil in lard, etc., has, I believe, hitherto been used only qualitively. When employed in the ordinary way it simply indicates the presence or absence of cottonseed oil, without giving much, if any, idea of the percentage present. During the last few days I have been engaged on a series of experiments with a view to make the process quantitative. So far, however, I have not been successful, but if further experiments prove more satisfactory, I shall be pleased to bring my results before you upon some future occasion.

Oil of Cajuput.

At a recent meeting of the British Pharmaceutical Conference, Wm. West read a paper upon the foregoing subject. The author stated that he had used much of this oil in place of oil of cloves, for the purpose of transferring sections from alcohol to Canada turpentine, and had found that it penetrates more quickly than oil of cloves, and that it is more readily expelled from the Canada turpentine afterwards. As the oil was down in the blue list for investigation he procured fourteen samples, which he examined, and reported that their specific gravity, at 155° C., varied from 0·9226 to 0·9240, while the color varied from pale bluish green or yellowish green to full bluish green. One sample was distinctly fluorescent. The boiling point of the samples was found to vary from 194° to 174·5° C. After boiling the color changed to a light brownish yellow, and, with continued boiling, to a deep brownish yellow, a change evidently due to copper, the presence of which was proved by shaking with diluted sulphuric acid, separating the latter from the oil, and adding ammonia in excess; this gave a distinct blue color. The specimens showed no difference in color, not even on boiling. The palest samples acquired a darker blue color after adding a few bright copper turnings and agitating at intervals.

Failing to obtain some Bornean camphor oil, which has been stated to be an adulterant of cajuput oil, the author examined ordinary camphorwood oil, which could be detected by its odor if mixed to any extent with oil of cajuput, and the specific gravity of the camphor wood oil varied 0·9443 and 0·9444. This oil also became blue on contact with copper. Oil of eucalyptus (of commerce) might be used as an adulterant if the price were much less, but its odor is perceptible when mixed with oil of cajuput to any extent. The Specific gravity of the eucalyptus oil examined was 0·9005, and was colored pale bluish green after agitation with copper. The author further spoke of an old sample of oil of cajuput which was pale brown in color, and showed no trace of the usual bluish green tint. The odor was like that of the other samples, but the specific gravity was only 0·9194.

English Distilled Oil of Japan Peppermint.

BY JOHN MOSS, F.I.C., F.C.S.

I have recently distilled 205 lbs. of green herb of Mentha arvensis f. piperascens, grown partly in my garden close to the Micham peppermint grounds and partly in a garden four miles further away. This is the plant which yeilds Japanese oil of peppermint. The original slips were kindly furnished by Mr. Thomas Christy about two years ago.

The yield was poor, as being about one-eighth of one per cent., somewhat less than half the yield obtained at Mitcham. Had the plants been allowed to remain till in full bloom in September the yield would no doubt have been much greater, but having grown so luxuriantly as to be somewhat of a nuisance they were collected August 14th, 1888, when they had attained a height of three feet, and distilled on the 16th.

The oil after standing for a week was brilliant, and had a decided yellow tinge. The specific gravity at 62° F. was 0·9107.

When determined by the boiling point, a light shower of very minute bubbles began to ascend at 339° F.; at 342° the shower was closer and remained steady for a quarter of a minute; at 369° it was still denser and composed of larger bubbles, and stayed quite half a minute; at 402° F., with the barometer at 30 inches, there was a steady tropical rain of large bubbles, which continued for ten minutes, and the boiling point was deemed to be determined.

The specific gravity of the oil after determining the boiling point was found to be 0·9117.

Other specimens of oil distilled in England from the imported herb, which was of course dry, were different in appearance and physical properties from that distilled by myself. They were some months older; one labelled "New Root" was distinctly green, and had a specific gravity of 0·9167 at 62° F.; the same "rectified" was pale in color with a faint green tinge, and had a specific gravity of 0·9098. Both were fatter looking ones than mine.

The specific gravities of these three oils confirm Todd's generalization that pure oils fall between 0·908 and 0.917 (*Phar. Jour.* 446, 1886). Each of them is miscible with any proportion of rectified spirit.

None of the three gives any coloration when subjected to the test given in Todd's paper above referred to. The test is exceedingly delicate for true peppermint oil. It is unfortunate that we possess none for the cheap Japan oil, and can only after many experiments estimate the proportion of it in a mixture of the weakened response of the true oil present in it. The object of this note is to place on record certain characters of Japan oil of peppermint of undoubted genuineness.

The Action of Sulphur Chloride on Oils.

BY CHAS. A. FAWSITT, F.R.S.E., F.C.S.

The action of sulphur chloride upon oils has long been known, and, moreover, turned to practical account by manufacturers. Interesting papers have recently been published on this subject by J. Carter Bell and T. P. Bruce Warren, who propose to employ this chloride as a reagent in the testing of oils and fats.

About two years ago I made a series of experiments on the same subject; and, seeing the matter was at present attracting attention, resolved to collect for publication any of my notes which might be of interest.

The first point which must strike the experimenter is the heat reaction between the chloride and certain oils, and which is more marked than when using sulphuric acid (Maumene's test). It occurred to me to make a series of experiments to see if characteristic results could be obtained which might be turned to some account as a test for oils.

The method of procedure was as follows: 30 grms. of oil were weighed in a small beaker, which was then placed into a somewhat larger beaker, and the space between them packed with cotton wool. The temperature of the oil having been taken, the chloride was poured in slowly during constant stirring, and the time having been noted the thermometer was kept stationary until the temperature ceased to rise, when it was noted down and also the time.

The chloride used was light in color, and was practically pure S_2Cl_2. This is an important point to observe so as to insure agreeing results, and which, I note, is mentioned by Warren. By using a dark chloride which contains SCl_2, and varies much in composition, satisfactory results could scarcely be obtained. A chloride which on distillation gives any distillate under 130° C., and leaves above 2 per cent. of solid residue behind, should be rejected. I experienced no difficulty in carrying out the trials with any oil, except castor oil, which was found to be almost unmanageable with pure chloride, as you cannot, on account of its high viscosity, stir in the chloride quick enough to prevent the oil being attacked locally, and it gets very lumpy, some of the oil at the same time being left untouched. This was specially the case when the higher percentage of chloride was used. It suggested itself to dilute the chloride with bisulphide of carbon or benzoline, but this I thought would introduce an error, as the loss of heat occasioned by the evaporation of the solvent would vary as the temperature was high or low.

The results are tabulated, and for the different oils, when 2 cc. of chloride were added, the rise in temperature varied from 0·5° C. per minute in case of palm nut oil to 27·7° C. for castor oil; for 3 cc. of chloride from 1° C. per minute for palm nut oil to 27·3° C. for codliver oil; and for 4 cc. of chloride from 1°—1·4° C. per minute for palm nut oil to 48·7° C. for linseed oil.

No doubt castor oil would exhibit a higher rise per minute than codliver for 3 cc. added; but the only reliable experiment was with 2 cc. of chloride. The manner in which the temperature rose was noticeable; for instance, with rape and lard it rose very slowly at the commencement, and afterwards proceeded quickly, while in the case of others—for instance, linseed and castor—it begins to mount up at once. It would almost seem that in examples of the former type some decomposition had to be effected before the chloride could act freely.

Seeing that the majority of the oils used in the trials were compounds of fatty acid with glycerol, the action of chloride was tried on glycerol, oleic, and stearic acids. It seemed to have little or no action on glycerol, the rise in temperature, as shown in the table, being due, I think, to the decomposition of the chloride by the water contained in the glycerol. It has also little action on stearic acid, but with oleic acid it shows a heat reaction somewhat similar to olive oil, but the product was in no case solid, a result which surprised me.

During the action of the chloride there is in some cases a copious evolution of hydrochloric acid gas—for instance, with palm, codliver, castor, rosin, and mineral oils—whilst in others, with seal, rape, and olive oils, the reverse was the case. The evolution of gas had in some cases a marked effect in stopping the rise in temperature, notably in the case of mineral and rosin oils.

In all cases, with the exception of palm oil which appeared to get thinner, the oils were thickened by the action of the chloride and when the higher proportions were used the resulting product was usually solid. Sperm oil was a notable exception, as, although it became somewhat more viscous, it did not show any signs of solidifying even with 5 cc. of chloride.

A large proportion of the oils solidified long before the maximum temperature was reached.

The solidified oil had usually characteristic physical properties, such as elasticity, color, transparency, dryness, &c.

As regards the chemical reaction which takes place between the oil and the chloride, it is usually regarded as one in which sulphur replaces hydrogen, and, the latter combining with the chlorine, is evolved as hydrochloric acid. This does no doubt take place to a certain extent with all the oils, although the gas in some cases is not evolved visibly, but besides HCl there is very often SO_2 and H_2S given off in small quantities. I remember that during these trials I wore a silver watch, and it was turned quite black in a short time.

As regards constitution, the oils experimented upon, excepting sperm, rosin, and mineral, are regarded as a mixture of two or more glycerides of fatty acids, glyceride of oleic, stearic, and palmitic acids predominating, with the exception of rape, which is said to be composed principally of glyceride of brassic acid. That the action of chloride on oils producing a solid product is due to the presence of the glyceride, is almost proved by the difference in the case of sperm oil, which does not give a solid product, and which is composed principally of oleic ethers of the higher monatomic alcohols, glycerides being almost entirely absent. Mineral and rosin oils, which consist chiefly of hydrocarbons, likewise give a liquid product.

It seems strange that the action of chloride on those oils which are thought to be approximately of the same composition should be so different—one giving off a large quantity of gas, another little or none, and at the same time giving different heat reactions and final products—for instance, palm-nut, linseed, and lard oils, which are said to consist principally of glyceride of olein.

No doubt the action of chloride on oils will help to elucidate some interesting points as to their reactions are better understood.

Oil.	Specific gravity.	Number of c.c. S_2Cl_2.	Rise in temperature.	Time in rising.	Rise of °C per minute.	Final condition of oil.	Color of oil after experiment.	Gas evolution.
	°C.	cc.	°C	Mins.	°C.			
Sperm	·882 at 16	2	37	16	2·3	Liquid	Little darker	Very small.
"	"	3	54	11	4·9	Liquid more viscous		
"	"	4	71	8	8·8	Liquid more viscous		
"	"	5	86	6	14·2	Liquid very viscous		
Seal	·923 at 16	2	45	10	4·4	Liquid more viscous	Little altered	None.
"	"	3	79	6	13·2	Solid sticky	Darker	
"	"	4	112	5	22·4	Solid dry	Darker	
Whale	·918 at 16	2	57	6	9·4	Liquid more viscous	Darker	Slight.
"	"	3	71	5	14·1	Liquid very viscous	Darker	
"	"	4	91	3	30·2	Solid dry	Very dark	
Neatsfoot	·916 at 16	2	51	7	7·3	Liquid more viscous	All darker	Slight.
"	"	3	66	5	13·2	Liquid very viscous		
"	"	4	82	4	20·5	Solid sticky		
Lard	·914 at 16	2	40	16	2·4	Liquid very viscous	Not changed	Slight.
"	"	3	62	9	6·9	Solid, got dry on standing		
Rape	·914 at 16	2	53	10	5·3	Liquid more viscous	Not changed	None.
"	"	3	66	7	9·3	Solid, slightly sticky		
"	"	4	89	6	14·8	Solid dry		
Cottonseed	·922 at 16	2	49	11	4·4	Liquid more viscous	Darker	Slight.
"	"	3	64	9	7·1	Liquid very viscous		
"	"	4	93	6	15·4	Solid sticky		
Linseed	·933 at 16	2	57	5	11·4	Liquid viscous	Little darker	Considerable.
"	"	3	79	3	26·3	Liquid very viscous		
"	"	4	97	2	48·7	Solid sticky		
Olive	·916 at 16	2	52	6	8·7	Liquid viscous	Little changed	Slight.
"	"	3	69	5	13·7	Liquid very viscous		
"	"	4	94	4	23·5	Solid dry		
Castor	·9627 at 15·5	2	56	2	27·7	Liquid very viscous	Little changed Darker	Abundant.
"	"	*3	68	3	22·5	Solid sticky		
Cod liver	·928 at 15·5	2	55	4	13·7	Liquid viscous	All darker	Abundant.
"	"	3	82	3	27·3	Solid very sticky		
"	"	4	103	3	34·3	Solid dry		
Mineral	·893 at 15	2	25	16	1·5	Liquid	Much darker	Abundant.
"	"	3	27	12	2·2	Liquid		
"	"	4	39	11	2·6	Liquid		
Palm	§·858 at 98	†2	35	3	11·6	Semi-solid	Darker	Abundant.
"	"	†3	45	2	22·5	Solid		
Palm nut	§·867 at 98	†2	5	9	0·5	Solid	Little changed	Slight.
"	"	†3	8	8	1·0	Solid		
"	"	†4	9	7	1·4	Solid		
Rosin	·987 at 16	2	31	7	4·4	Liquid more viscous	Darker	Abundant.
"	"	3	33	4	8·2	Little more viscous		
Oleic acid	·8982 at 0·16	2	53	6	10·6	Liquid viscous	Darker	Considerable.
"	"	3	74	5	14·9	Liquid viscous		
"	"	4	99	6	16·5	Liquid viscous		
Stearic acid	"	2	‡5	7	0·7	Solid	Darker	None.
"	"	4	‡8	5	1·6	Solid		
Glycerol		4	21	7	3·0	Liquid	No difference	None.

* Unreliable. † Initial temperature, 34° C. ‡ Initial temperature, 65° C. § From Allen's Organic Analysis.

Acaroid Resin and its Uses.

It is strange, that many well known products find such limited application in practice. One of these products is acaroid resin. In the following we wish to show from practical experience, the industrial value of this resin, especially for the manufacture of varnishes, sealing wax, etc., because it possesses really remarkable properties which appear to justify its more numerous applications.

Acaroid resin, also called xanthorrhea gum, Botany bay gum, grass tree gum, nut resin, and earth shellac, is derived from an Australian asphodelia, and covers the trunks of the tree in layers, having a thickness of 2-4 cm. The resin which occurs in irregular mass, has a color similar to that of dragon's blood, but is distinguished from it by the brilliancy of its lustre, the color which is strongly inclined to brown and its orange colored streak.

The yellow acaroid resin forms round, or oblong pieces, having a diameter of 3 cm.. and when fresh has an isabella yellow color, recalling that of gamboge. On ageing the resin becomes covered with a reddish brown coating. This rosin differs from the red acaroid resin not only in color, but also in structure. Both resins dissolve in alcohol with their peculiar color.

The alcoholic solution of the red variety, which is commercially known as black bay gum, has a fine red color, and may for many purposes replace solutions of dragon's blood, and when diluted gamboge and saffron, which are used to color shellac solutions, for gold varnishes on metal. The ordinary gold varnish used for coating brass, has the disadvantage, that it bleaches when exposed to light. The lighter color of the brass, e. g. in optical instruments soon reappears, because generally vegetable coloring matters, such as turmeric and saffron are added to moderate the red tint of the dragons blood. A solution of acaroid resin,as far as experience goes,gives a fine golden tint which is permanent to light, and requires no addition of other coloring matters. In order to harden the varnish, it is generally advantageous to use a mixture of shellac and acaroid resin, to which some colophony is added to prevent the cracking of the varnish. In certain cases an essential oil, turpentine, or oil of bergamot is also added.

Spread upon glass, this varnish leaves a perfectly clear orange colored layer, and such glass can be used with advantage for illuminating the dark room of photographers, because it costs but little more than ordinary window glass, and allows no chemical rays to pass through. Polished metallic surfaces when to be coated with this varnish, need not first be heated, as is the case when a shellac varnish is to be applied, and give a lustrous, transparent coating. The application can therefore, be effected much more conveniently and with greater uniformity. Tin capsules for bottles, tin foil, etc., when varnished in the cold, also acquire a fine gold color that will not fade.

On account of its excellent properties this resin is also specially applicable for floor varnishes, and has been used for this purpose by the author for many years. It is also used with or in place of shellac in the manufacture of sealing wax.—*Die Oel u Fett. Ind*

Review of the Drug Market.

(From Gehe & Co.'s Semi-Annual Report.)

Almonds.—During the season now drawing to a close, there has been very little alteration in the position of this article. Moderate prices ruled for Puglia and Sicilian almonds even when the long continued drought in Italy caused apprehension as regards this year's crop. The coming harvest is expected to yield about two-thirds of the heavy crop of last year, but the usual speculative sales not having been made this season, the price for the new almonds has not yet been fixed; it is not believed, however, that the article will see a rise.

Balsam copaiba.—The expectation that the very high rates current for copaiba balsam would attract large supplies has proved correct. Of Babia and Angostura, as well as of Maracaibo balsam, heavy arrivals have taken place at Hamburg, but the price only declined by about 5d per lb., the arrivals in question having been taken up by speculators, and an effort is even being made to force the price of genuine Maracaibo balsam up again. The stock now available may probably be sufficient to supply the consumption, excepting thin Para balsam, which is comparatively scarce, but if the demand should become lively, speculators will find no difficulty in forcing up the price as soon as the arrivals cease, and the first hand is cleared out.

Borax.—There is no change in the value of the refined article. The British refiners continue to offer their brands f. o. b. German ports at the same quotations as the German makers. But as the British refiners have ceased to quote their borax delivery free to the inland towns of Germany, as they used to do, and the Italian and French producers occupy themselves solely with the feeding of the neighboring markets, the German makers have been enabled to keep their quotations unchanged, especially so because their goods find a ready market. The American borax producers, whose industry dates from the discovery in 1873 of extensive borate deposits in eastern California and southern Nevada, have had great difficulty since a long time to cope with the European refiners in the United States markets. The contemplated abolition of the 5c. duty on foreign borax in the States would kill their industry altogether.

Cantharides.—The stocks of cantharides in the centers of Hamburg, London and New York have been nearly all bought up at receding values, but some supplies may possibly still remain in Russia. If so, the owners will certainly try to keep the new crops' flies at a high figure, all the more so because the recent catch is said to have been not too large a one. Meanwhile Roumania and Hungary have supplied very large quantities of the flies, while Sicily only offered inconsiderable quantities. If buyers should hold aloof more or less, Russian flies may, perhaps, be offered at still lower rates.

Cascarilla remains dear, while the quality of the London arrivals leaves to be desired. Recently a shipment, partly of very fine quality, arrived direct at Hamburg from South Africa (?). It is thought not impossible that in future this drug will regularly find its way to Hamburg direct.

Guarana remains moderately cheap. But it appears that the stock here will be soon exhausted, and it is scarcely likely that anything further will come in from Brazil, as the article fetches better prices there than here.

Gum Arabic.—No change whatever has occurred in the position of Turkey gums during the last five months. The arrivals of true Soudan gum have ceased altogether, and Gehzirah gum also, which is generally exported from the Red Sea ports, and is best fitted as a substitute for real Kordofan gum, becomes more and more scarce. A similar kind of white gum is now brought into commerce from Mogadore, and this may perhaps be able to fill the place of Gehzirah. Whether the Italian efforts to open up trade with Kassala via Massowah are likely to be successful cannot as yet be judged, nor is it possible to say whether Soudan gum would find its way by that route. In the meantime the market remains dependent upon the principal substitutes, especially Senegal gum. Unfortunately it appears that the Senegal crop is short this season, the "Bas du Fleuve" gum gaving only yielded from 8,000 to 10,000 bags, against 16,000 last year, and 22,000 in good crop years.

Gum Asafœtida.—The demand being a limited one, prices have hitherto remained moderate, but the London stock is small, and, as it consists principally of common and stony qualities, good grades will command high prices during the winter season (the period of largest consumption) unless new imports should take place soon.

Insect Flowers.—It is a matter of notoriety that last season Dalmation insect flowers rose to very high prices indeed. On June 1 the Trieste stock had fallen to 8,900 kilos.,less than ever before. The hope that flowers of the new crop would be obtainable more cheaply proved false, barring a few occasional purchases, and the present quotations of 300 fl. for closed, 370 fl. for half closed, and 235 fl. for open flowers are the highest ever known at the present time of the year. There is no doubt that the Dalmatians are keeping back their supply in order to push prices still higher, if possible, while on the other hand, the buyers confine their purchases to actual requirements. The arrival of flowers at Trieste have been 112,500 kilos. only, against 152,500 kilos. the year before. The deliveries were 56,700 kilos. and 135,600 kilos. respectively. If the orders should continue to come in so sparingly as they do now, holders will ultimately have to give way. Persian flowers are not to be had at present, although fresh arrivals may be about to come in, but it is said that in Persia higher prices than usual must be paid.

Medical Herbs.—These herbs,similarly to the flowers, have suffered much by the unfavorable weather. With a few exceptions,however, they have arrived in fully sufficient quantities, but buyers must not be too exacting as regards quality. Among the narcotics hyoscyamus and belladonna especially are scarcely to be obtained in selected qualities. Digitalis has been sufficiently abundant, and so has conium, but the latter is deficient in color. Aconite is very late this year, the prolonged existence of snow on the Alpine range having retarded its gathering. Stramonium, of which the use appears to be on the increase, has been fairly plentiful, in moderately good quality. Of the cultivated herbs the mints have been conspicuous for their cheapness. The cultivation of these plants in Thuringia has been on a very extensive scale, and both peppermint and spearment were suddenly thrown on the market in excessive quantities; but the herb is small of leaf and dark in color. Melissa also shows an undesirable quality, although the price, like that of salvia, is a moderate one. The reports cencerning marjoram were at first unfavorable, but the recent improvement in the weather will probably improve the growth. The so-called bitter herbs, herba abeynthii centaurii minoris, and cardui benedicti, have suffered least. Trifolium also has been gathered in sufficient quantities. H. adonidis vernalis seems again to be falling into desuetude —at any rate, the demand has been very light, H bursæ pastoris, recommended as a substitute for ergot, only excites an occasional interest. Of H. fanfaræ very little has been brought to market in good quality, but galeopsidis has been favorably affected by the wet July weather. Hepaticæ nobilis is offering abundantly, but there is no demand for it. Hardly anything has been brought forward in H. polygalæ amaræ. For this and simlar herbs, which is very difficult to gather, the gradual extinction of the old experienced herb gatherers is a great drawback. The extract prepared from the common hemp has recently been in request for medicinal purposes.

Musk.—Notwithstanding the extreme prices paid in China for Tonquin musk (fine brands being held as high as 250 taels at the beginning of the year), the shipments from Shanghai during the first three months have been very large, viz., 1,266 caddies, or half of the total of the 1887 exports. The value of the article in Europe has thereby become depressed, and Pile I, which in the autumn of 1887 fetched 120s. in London, declined in March to 93s. and thence to 82s. During the second quarter of 1888 the exports from China were only 465 caddies, and as the principal time for the consumption is now approaching, prices may easily advance. Cabardine musk has come to hand from Siberia in very small quantities, and its prices can easily be maintained.

Orange and Lemon Peel.—Malaga peel has been offering in more abundant quantities than in former years, and the value has consequently fallen lower. But peel from southern France, "free from parenchyma," has only been offered sparingly, and may soon become dearer, the orange flowers having suffered much damage this year, so that there will be a scarcity of fruit next season.

Spermaceti.—The quotations for this article have been falling gradually, if slowly, the former New York price of 30 cents having in the space of a twelve-month receded to 20 cents. The future course of the article must depend upon this year's catch, concerning which no information has been received yet.

Tonquin beans have become a little cheaper. This article has for years been under the control of New York firms, and the shipments to Hamburg are now much smaller than formerly. The consumption likewise has much diminished since cumarin and other perfumes have been used as substitutes.

Mixed Lard and the Detection of Cottonseed Oil.

BY OTTO HEHNER.

A bill has lately been laid before the United States House of Representatives to regulate the manufacture and sale of counterfeit or compounded lard.

From the memorial to the Senate and House of Representatives in support of the bill I take the following interesting details:

"The annual production of lard in the United States is now estimated at 600,000,000 pounds, of which more than 35 per cent. is an adulteration. Lard is one of the great staple products of the country."

"The advocates of the proposed legislation do not object to the use of cottonseed oil as food, either alone or in combination with other substance; they make no war upon that article. They do not object to the manufacture and sale of any new and healthful article of food; but they do object to the sale of compounds as lard and the concealment of the fact that they are not lard."

They define lard as "the fat of swine after being melted and separated from the flesh," "not any particular part of the fat, but whatever is the fat of swine thus treated is lard; that is the generic name."

In 1886-7, 17 million hogs went to market, the lard from which alone amounted to more than 527 million pounds, representing a value of 40 million dollars. More than 325 million of pounds of it were exported to foreign markets, bringing into the United States nearly or quite 30 million dollars."

"Forty years ago refined lard came largely into use. It was made by pressing out of pure lard a portion of the oil, the lard stearine being left behind. This was added to unpressed lard for the purpose of stiffening it, the mixture being called refined lard, consisting entirely of the fat of swine. It commanded for 40 years a higher price than ordinary lard, the difference being on the average one-half cent in favor of the refined article."

"During the last seven or eight years compounds have been made consisting of lard, cottonseed oil, and beef stearine; or lard, water, cottonseed oil, and beef stearine; or cottonseed oil, beef stearine, and no lard, or only a very faint trace of lard. These compounds were sold as 'refined lard.' 'pure refined lard,' 'choice refined family lard,' and other similar names."

Professor H. W. Wiley, in his evidence, states that "he analyzed 12 samples of Fairbank's manufacture, all of which contained cottonseed oil, eight being branded 'Prime refined family lard,' one 'Choice refined family lard" one 'Pure refined family lard,' one 'Prime refined family lard,' and one only 'Compound lard.' Of 12 samples of Armour & Co.'s manufacture ten contained cottonseed oil, two being pure lard."

"Messrs. Armour & Co. state that they use from 59 to 75 per cent. of lard in their mixtures, Fairbank from 50 to 75 per cent. The former firm use 75,000 barrels of cottonseed oil, and make 60 million pounds refined lard. 75,000 barrels weigh 28,125,000 pounds; hence the average proportion would be 46 per cent. of cottonseed oil in the mixture. But as from 10 to 15 per cent. of stearine are necessary to stiffen the mixture, the proportion of lard would be only about 42 per cent."

Abundant evidence was collected in proof of the above statements, but I would take exception to the statement that lard is the fat of swine generally. Of late years certainly the whole of the fat has been used in the manufacture of lard, but originally only the belly fat was employed. This is the true source of lard.

The test relied upon by Prof. Wiley for the detection of cottonseed oil is the nitrate of silver test, presumably that described by E. Bechi. This has, since its publication in 1884, been variously modified. Bechi dissolves 1 grain of silver nitrate in 200 c.c. of 98 per cent. alcohol, and adds 40 c.c. ether. He also makes a solution of 15 per cent. of rape oil in alcohol. 10 c.c. of the oil to be examined are mixed in a flask with 1 c.c. of the silver solution, and 12 c.c. of the alcoholic rape oil solution; the whole is well shaken and heated for a quarter to half an hour upon the water bath. In presence of cotton oil the mixture assumes a dark coloration. The Italian Government at once appointed a commission to investigate the method. The report is to the effect that the method is perfectly trustworthy, provided the reagent contains a small quantity of pure nitric acid, and the oils to be tested have previously been filtered. The reagents recommended are composed as follows:

	Grms.
1. Silver nitrate	1
Alcohol	200
Ether	40
Nitric acid	1
2. Amylic alcohol	100
Colza oil	15

Fifteen per cent. of cotton oil can readily be detected in olive oil, but if less than 10 per cent. are present the results are doubtful. If too little free acid be present, reduction may take place even in absence of cotton oil; if too much, no reduction takes place even with cotton oil.

Milliau (Analyst, xiii., p. 95), instead of testing the oils direct, separates the fatty acids, takes about 5 c.c. and heats with 2 c.c. of a 30 per cent aqueous solution of nitrate of silver. In this manner he claims to have easily detected a one per cent adulteration.

I have made many experiments with pure and mixed lards, and can fully corroborate the Italian Commission as to the importance of the presence of a small quantity of free nitric acid, but Bechi's test can, without impairment of its delicacy, be simplified by the omission of the amylic solution of colza oil. I make a solution of nitrate of silver in alcohol and ether, very slightly acidified, and add to the oil to be examined about half of its bulk of the silver solution, then heat on the water bath for a quarter of an hour, no longer. Pure lard always remains perfectly unchanged, cotton oil mixtures blacken more or less quickly. It is quite possible to arrive at approximately quantitative results, by comparing the oil mixtures of known composition. I consider the test an invaluable one. It is also quite applicable to butter and margarine. Pure butter does not reduce the silver solution; margarine, containing as it does almost invariably some cotton oil, reduces strongly. I can see no advantage in Milliau's modification, especially as it renders the test a much more complicated one.

As to the quantitative estimation of cotton oil in lard, the Maumene reaction, if properly applied, answers all requirements. It is essential that the sample to be tested be free from water. If the lard does not melt quite clear, it must be heated over a very small naked flame, until all water is driven off.

Fifty grams of pure lard with 10 c.c. of strong sulphuric acid show a rise of from 24 to 27·5° C., cotton oil of about 70°. Mixtures made by myself yielded increase of temperature as nearly as possible corresponding to the theory. In every case a lard which reduces silver shows a rise higher than 27·5° Thus I have examined samples which produce a rise of 29°, 35°, 36°, 38·5°, 40° and 41·5°, the first sample reducing silver slightly but unmistakably

If in any doubtful case further corroboration is required, the method lately described by E. Salkowski is extrely useful. Salkowski has shown that, whilst animal fats contain invariably a small quantity of cholesterin, vegetable fats contain an allied substance, phytosterin. The former crystallises from alcohol in flat tablets, melting at 146°; the latter in long needles, fusing at 132° C. It is very easy to obtain a tangible quantity of the crystals from 50 grams of the fat. This is saponified with alcoholic potash, the soap well shaken out with ether, the ether distilled off the residue once more treated with alcoholic potash and ether, and the residue thus purified dissolved on a watch glass in a few drops of hot alcohol. The long needles of phytosterin obtained in the case of the presence of a vegetable fat can be further tested by the reaction with chloroform and sulphuric acid. Cholesterin gives a beautiful red chloroform solution, phytosterin a bluish one, the difference being strongly marked if the solution is allowed to stand in a well corked test tube for a couple of days.

I rely, therefore, upon the silver test,coupled with Maumene's method, and corroborate, i requisite, by that of Salkowski.

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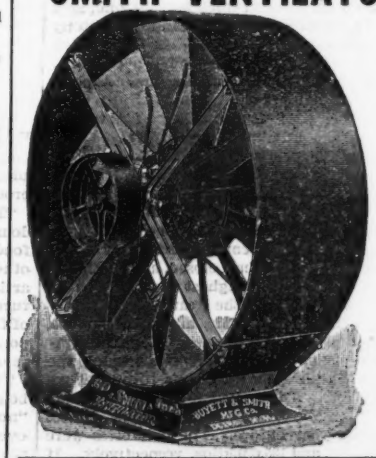

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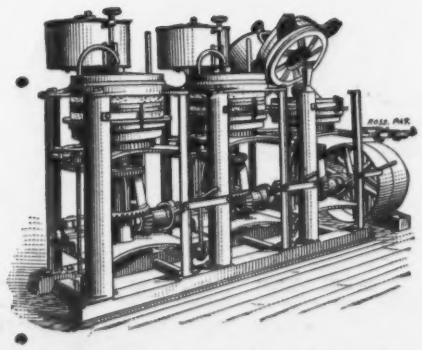

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PAINT MARKET.

Note—*Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures.*

The prices current will be found on page 49.

TUESDAY EVENING, Sept. 25, 1888.

White Lead, Zinc, Etc.

The pig lead market has been resting on a quiet but firmer basis, the bull element still having control. Trading on 'Change was rather light, as buyers and sellers were considerably apart. The closing quotations today were 4 95c bid and 5 10c asked for spot and September, and 4 97½c bid and 5 07½c asked for October. Messrs. Everett & Post write from Chicago, on the 22d inst.: "This market opened up quiet, though firm, with 4 80c bid by the speculators, at which figure a few hundred tons desilverized were sold to them early in the week; later, they were a little reluctant in bidding over 4 80c, but at the close they are taking lead where it can be had at 4 85c to 4 90c; however, there is nothing offering now at under 4 90c, and at this price, if the speculators want it, there is still more to be unloaded on them, as is the case at every advance. Consumers have not yet come to the front; in fact, a good many of them prefer selling instead of buying, and resales have been made during the week of several hundred tons at and around 4 85c Chicago, principally for out of town delivery We call market at the close 4 90c asked. At St. Louis the week's business has been confined entirely to speculative trading at prices ranging from 4¾c to 4 90c. Early in the week a few hundred tons changed hands at 4 80c and at tho close 4 90c is bid for October delivery by the operators and they get a little each day, but so far there don't seem to be anybody sold out. Inquiries for Lead from consumers for either spot or future delivery have been few and far between, all positively declining to buy lead at present prices.

The white lead corroders have again concluded to try what virtue there may be in combination as a panacea for the evils which have encompassed them sine the time an open market was declared. Details of the agreement entered into by the corroders have not yet been made public, but in the review of the situ ation in our editorial columns the facts as so far developed are given, together with a resume of the causes leading up to the combination. Prices have been uniformly advanced under the new agreement to 7¼c for lots of less than 500 lbs, and 7c for over 500 lbs, less a discount of 2% for cash in 15 days. Buyers of 500 lbs or over will be allowed a rebate of ½c per pound, and ten ton buyers, counting all brands, will get an extra rebate of ½c per lb, payable July 1st and December 31st. on purchases and deliveries made prior to those dates.

American Oxide of Zinc is unchanged in price, with the trading moderate in a jobbing way, we quote 4¼@4¾c, according to quality French zincs have been advanced some what, and the ruling figures are now 6¼c for dry Antwerp red seal in bbls. of 220½ lbs; Paris red seal 6¼c, and 7½c for Paris green seal. Discounts on French are as follows: To buyers of 10 bbl. lots of one or assorted grades 1 %, 25 bbls 2 % and 50 bbls 4 %. No discount is allowed on less than 10-bbl lots, and discounts include brokerage.

Dry Colors.

REDS.

The market for dry colors has been active to a moderate extent only, and there has been an absence of special features: Prices except in one instance are unchanged, while the market as a whole, is steady, at the ruling figures. English Venetian Reds continue in moderate request, while prices are unchanged at $1 45@1 50 for special brands in large lots, while other grades in smaller quantities are selling at $1 35@1 45. American makes have been selling moderately well, and at unchanged figures, as follows: 90c@1 05 for ordinary grades, with some special brands held at $1 20@1 25, according to make and size of order.

Cobalt Oxide is ruling quiet and unchanged. No trading of any moment is reported, while values are quoted at $2 90 for prepared and $2 50 for black.

Orange Mineral is practically unchanged from last week, and the market is still ruling firm with stocks in only limited supply. German is quoted at 8¾@9½c. English at 8¾@9½c, and French at 9@9½c. Domestic is ruling at 8@8¼c, according to quantity and quality, with a fair demand prevailing.

Carmine is wanted in a moderate jobbing way, but there continues an absence of special transactions and the market is devoid of special features. Old figures rule, namely, $3 15 for round lots, and $3 25@3 35 for smaller quantities according to style of packing and size of order.

Quicksilver vermilion.—There have been no further changes in this article and trading has continue fair, without feature, at the advance prices, which are 60c per lb for 100-lb kegs or over and 61c for kegs of 30 or 50 pounds.

Red lead and litharge are higher, in sympathy with the lead market, and the market is firm at present figures. The trading has been of a jobbing character and of moderate proportions. Quotations for the former are as follows; 6¾c in csks and bbls and 7c for smaller lots, subject to a rebate of ½c for cash 60 days, and an additional 2½% for cash 15 days. For the latter 6½c is quoted. Some dealers, however, are still quoting the old figures.

BLUES.

Blue pigments are selling fairly well, but the trading has been entirely of a jobbing nature. the business being accomplished without comment. We are unable to note any features of interest, while as regards quotations they are identical with last week at the following: Prussian blues at 25@30c, according to quality, etc., while the asking figures for Chinese are 48½@50c. The other blues are at our previous rates.

YELLOWS.

N M B ochers continue scarce on spot, with no arrivals reported, and as a consequence, we are not able to report any business. Quotations are still nominal at $1 35. On French-washed the situation is unchanged, with values ruling at 2@4c, according to quantity, and very little business doing. Domestics are only in moderate demand, at former rates. Sales of some 250 bbls are reported.

GREENS.

No new features are apparent in the market for green pigments; sales have been moderate and in jobbing lots, while prices are at last week's figures. Paris is quiet and in light demand at our previous rates, named by the association, which are 18¾c in kegs or casks; kegs, 100 to 150 lbs, 19¼c; 14, 28 and 56 lb iron cans or boxes net weight only, 20¾c; 2 to 5 lb paper boxes, 20¾c; 1 lb paper boxes, 21¼c; ½ lb paper boxes, 23¾c; ¼ lb paper boxes, 25½c. Free on board at New York, Philadelphia, Boston or Spring-

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Miscellaneous.

Sulphate of Barytes is without feature, the market ruling quiet and unchanged. Small jobbing sales only are reported: $21 50 is quoted for special brands of imported, best No. 1 at $17 50@18 50, according to quantity; best off-colored grades at $15; No. 2 at $14, and No. 3 at $12.

Chalk—There is nothing of special interest in the chalk market. Supplies have been received, and there is sufficient stock available for present wants, at least. Quotations continue in the neighborhood of $3, with no transactions of importance reported.

China Clay—There have been arrivals of supplies, and there is now a good stock of all brands on hand. The bulk of the business has been in the shipping of parcels, sold to arrive. No change in the quotation is noted, they continuing at $13 30 for low grades, $16 for mediums and $18 for the higher qualities.

Talc—A small jobbing business has been doing in this article, and no features can be noted. Values are unchanged, being quoted at 1¼@1¾c for French and ⅝@1½c for American, according to quality.

Terra alba is unchanged from last week. There is a continued scarcity of French and as a consequence no scarcity can be recorded. Sales of American have compared favorably with last week and our previous quotations continue to represent the market. They are ⅝@1c per lb for French and No. 1 American 70@75c per 100-lb, and No. 2 40@45c.

Whiting continues strong, and manufacturers are still working to their full capacity to fill orders before the close of navigation, Values are quoted at 50@52½c for common and 65@70c for gilders.

Clues.

A fair business has been done during the week under review, the demand being fully up to the ordinary requirements at the season. Prices continue low and yield under any pressure to sell, though the continued decrease in the imports is encouraging holders.

Glass.

WINDOW GLASS.

The situation in the window glass market is unchanged. The feeling regarding prices for American in this market is unsettled, but previous rates still hold good. There has been no further change in French. The demand improves slowly for both kinds.

PLATE GLASS.

Dealers report a better demand, but the movement is still comparatively light. There is no change in discounts, remaining 50 and 10@60%, according to size, quantity and seller.

Glass Notes.

The following items of interest are from the *American Glass-Worker:*

As we stated in a few lines last week the date of the start-up of the window glass factories in the West was changed from October 8 to October 1 at a meeting held in this city on the 13th. This action was taken by the manufacturers on account of the starting of the factories at Muncie, Ind., Dunkirk, Ind., and Laramie, Wy., and as it was pretty evident that it was the part of wisdom to do so. It was published at the time that the workers had broken faith with the manufacturers in not preventing the three factories named from starting but such statements are nonsensical. When the agreement was made by the wage committees, the manufacturers were told there were three or four firms in the West which they would not try to hold in line and the three factories above mentioned were the ones referred to. It was also pretty well understood that the start-up would be made between September 15 and October 1, but instead of adopting those dates October 8 was fixed upon. It was this late date which caused so much comment until the manufacturers acknowledged their error by making the date a week hence. As it is all past, however, all is serene again, but there is not much likelihood of another agreement of that kind being made again. The manufacturers at the same meeting reduced the selling price of glass about 10 per cent in order to compete with the imported article. Since August trade has picked up and is now very good, though prior to that time it had been flat. All the factories in the West will start on October 1, one week from Monday. Those in the East started on the 20th, or Thursday of this week. We understand the northern district will not go to work until October 8. All the firms in this vicinity except R. C. Schmertz &

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Co., Bellevernon, who will hardly have their factory there in shape by the time, and O'Leary Bros. will start at the new date. The workers can now smile since they know the annual shut down is over and congratulate themselves at all events that the start up this year has been earlier than it has been often in the past.

A change has been made in the firm of T. Campbell & Co., window glass manufacturers, Mr. John Good having purchased the plant on the south side. Mr. Good came from the ranks, was a flattener and for several years has been manager at Campbells. The new firm will be known as the T. Campbell Glass Co. The plant is a 10-pot one and enjoys good trade right along.

It is stated that the Chambers glass works on Eighth street, south side, have been sold to Dilworth, Porter & Co. The factory will be operated this blast but after that Mr. Chambers' interests are transferred to Jeannette.

The Marion window glass works is completed and is a model. The factory is 90x120 feet, the flattening and cutting house 100x125, the pot room 50x130 feet. All are being made ready to start.

Schlochter & Heintz, of Streator, Ill., have recently patented a continuous glass smelting tank furnace which they believe will supercede all continuous tanks in the market.

Glassboro, N. J., September 18.—The Malaga window glass works will go into operation on Monday. The new window glass works at Vineland went to work last week.

No. 1 factory at South Millville went into blast last week. The green bottle houses of Whitney glass works commenced making ware last Saturday. The flint house has been n operation about a month.

The East Lake glass works, Bridgeton, commenced operations last week.

The Camden glass works, which are operated by Whitney & Synnot, went into blast Wednesday.

John Williams, of Baltimore, President of the Green Glass Blowers League, has resigned on account of ill health.

The manager of the Malaga glass works and the works in Millville, was at the company's office on Tuesday of last week, and informed the men that the firm had decided not to start the works for some time, and that probably the factories would not go into blast during the season. The men were advised to secure places elsewhere. No reason was given for the firm's determination to close the works, but it is said that it is owing to some disagreement about leasing them. The shutting down of the works throws 16 blowers, 16 gatherers, 16 second handers, 7 cutters, 4 flatteners and about 20 laborers out of employment. One blower and two tending boys have secured places at Malaga.

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Vermilion of lower qualities.
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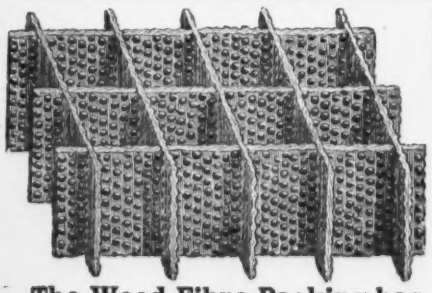

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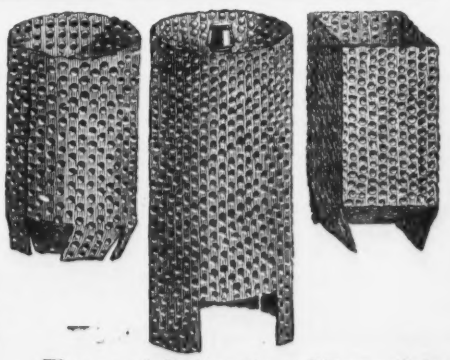

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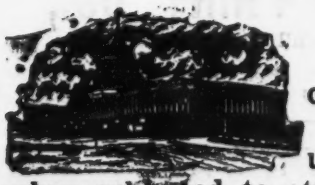

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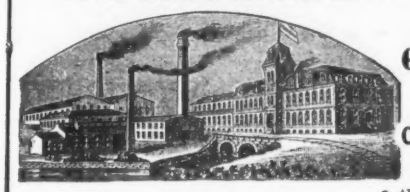

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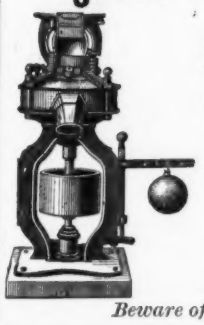

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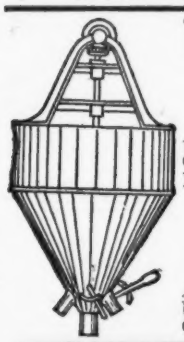

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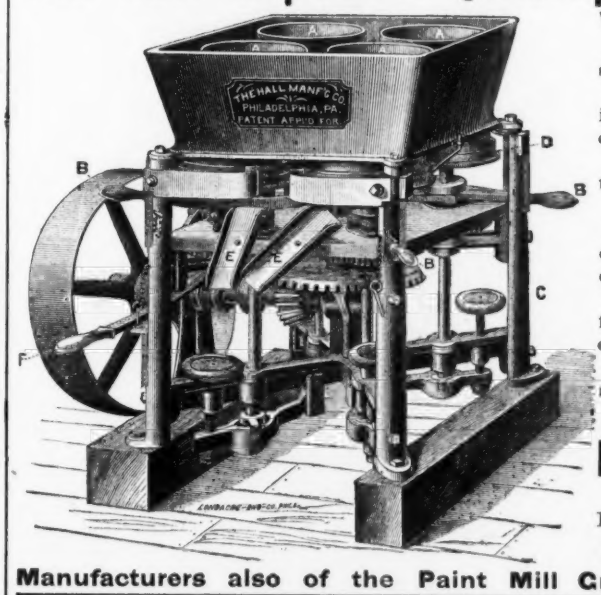

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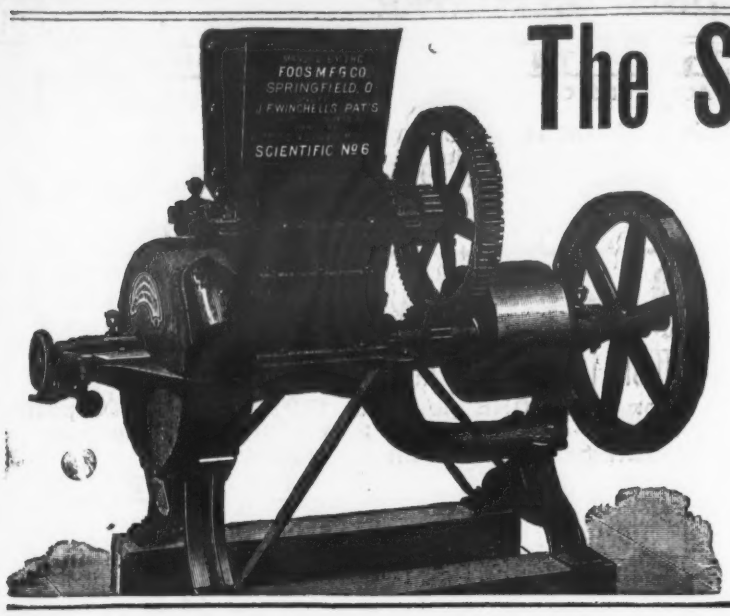

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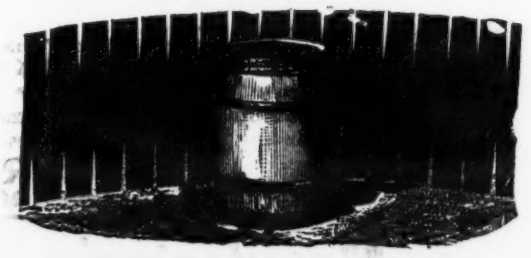

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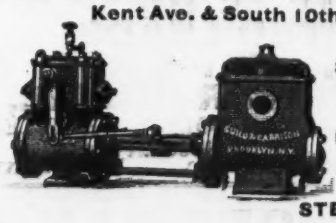

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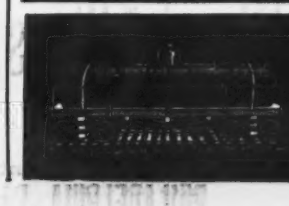

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YOUNGSTOWN, OHIO.

OIL MARKET.

Note—*Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures.*

The prices current will be found on page 49.

Vegetable Oils.

TUESDAY EVENING, Sept. 25, 1888.

The linseed oil market is gaining in strength, being quoted higher than this time last week and with indications favoring another advance before long. City crushers are now asking 54c for domestic and 56c for Calcutta seed oil. Both have been on an equal basis for some months, but they concluded a few days since that it was time to make a distinction. The demand is reported good and as October is an active month, prices are expected to be well maintained, until November at least. Western oil is rather scarce on spot and quoted firm at 52c. Receivers report more orders than they can conveniently fill.

The cotton oil market has passed through a very quiet week without the situation being altered a particle since last writing. Spot supplies are gradually becoming exhausted and the few holders are realizing full prices which are 42c for prime crude and 48@50c for prime summer yellow, according to quality. The only important transaction to be noted was a sale of 200 bbls summer yellow said to have changed hands at 48½c although the terms were private. Summer white is being taken more liberally by foreign buyers and they are favored with summer yellow prices. The inquiry for future delivery has subsided for the time being as the views of buyers and sellers seem to be wide apart. The export business is commencing to show up to a larger extent than last season, which would indicate that the report of large stocks abroad was not well founded. It is now asserted that the continental markets have limited supplies of oil, but the near future will develope the true state of affairs. There seems to be no demand for forward delivery as yet from that source and this would look as if the wants were either not very urgent or that much lower prices are expected to prevail here. As the time for new oil to be on the market approaches, the feeling becomes easier—in fact prospective buyers cannot be induced to to negotiate on any reasonable terms. We are wired the following from New Orleans, tonight: "Crude nominal at 35c; seed $11 per ton, ex levee; cake $21 bid and $22 asked; little business doing and city healthy." The following telegram was also received from our Memphis correspondent, as we go to press: "Crude nominal, none offering; refined forty-seven to forty-eight; meal $17 50@18 per ton; cake $20 25 @20 50. Seed receipts fallen off on account of quarantine."

Exports of cottonseed oil from New York by countries

To	For week ending Sept. 24, 1888. Gls.	Since Sept. 1, 1888. Gls.	Same time last year Gls.
Africa	..	....	....
Arg. Republic	..	....	..
Australia	..	....	259
Austria	..	....	...
Belgium	..	5,000	....
Brazil	..	1,421	957
Br West Indies	229	1,787	1,125
Br Guiana	..	....	....
Canary Islands	..	....	....
Central America	..	....	....
Chili	..	...	672
China	..	....	....
Cuba	..	.. .	....
Dan West Indies	..	....	....
Denmark	..	150	....
Dutch West Indies	..	....	....
Ecuador	..	....	....
Egypt	..	....	....
England	..	250	392
France	..	..	7,886
French West Indies	..	...	
Germany	..	29,450	1,849
Hayti	48	48	....
Italy	..	....	....
Japan	..	....	....
Mexico	2,033	1,559	.. ..
Netherlands	..	78,571	3,392
North America	..	....	....
Norway	..	....	....
Peru	..	....	....
Pto Rico	..	....	960
Scotland	..	....	2,500
Spain	..	....	....
Turkey	..	....	....
U. S. Columbia	..	120	40
Uruguay	..	....	
Venezuela	..	....	116
Total	2,310	123,732	52,798

Exports of cottonseed oil from New Orleans by countries:

To	For week ending Sept. 21, 1888. Bbls.	Since Sept. 1, 1888. Bbls.	Same time last year. Bbls.
Austria	..	....	....
Belgium	..	....	....
England	..	....	....
France	..	....	....
Germany	..	....	....
Gibraltar	..	....	....
Italy	..	....	....
Netherlands	..	....	....
Portugal	..	....	....
Spain	..	....	....
Total		....	....

Exports of soap stock from New Orleans by countries:

To	For week ending Sept. 21, 1888. Bbls.	Since Sept. 1, 1888. Bbls.	Same time last year. Bbls.
Cuba	..	....	.
England	..	.. .	1,505
Italy	..	...	....
Spain	..	....	...
Total	..	....	1,505

Ceylon cocoanut oil has gone up a peg, being now held at 5⅝c from store, but it is claimed that 5½c would still be accepted for a few stray lots on dock. Future delivery is firm at 5½c and a fraction above, according to location of supplies. The market is in a good position, and better prices are looked for. Cochin oil is stationary at previous figures.

Olive oil is doing better, and holders have advanced their figures to 70@71c for Italian oil on spot. We have sales of 15,000 gallons at 68@ 70c. Malaga oil is held at 72@74c, with moderate sales within the range.

Animal and Fish Oils.

Lard oil has advanced to 80@81c for prime grades, but the movement is very slow at these figures. Extra No. 1 is still to be quoted at 57½@70c, according to brand, and the lower grades are also unchanged.

Elaine oil is steady at the advance to 37c for carloads, but the demand is slack, owing to the price. As tallow is on a good basis, with the probability strong for remaining so, there is little hope of an easier market for elaine, which sympathizes with tallow fluctuations.

Cod oil has considerable inquiry and the price for domestic has been advanced to 35@ 36c. It is a natural reaction from a long depression during which consumers allowed stocks to run low and failed to take advantage of the situation. They are now in the market and find supplies very light.

The crude sperm oil market has been active during the past week, with sales of 1,950 bbls in parcels partly inferior on private terms. The price was said to be based on 62c for a good article. In the crude whale oil market there has also been a movement of 750 bbls Northern for manufacture at 37c, and 180 bbls Southern for same use at 34c.

Whalebone is held at $3 25 per lb for arctic Sales were made of 3,000 lb old Arctic, at $3 10; 1,500 do. do. at $3 15; and 3,500 do. do. at $3 25 lb, for home and export. The stock is distributed as follows:

New Bedford—Arctic,	2,000		
" " Jap & Ochotsk,	30,500	35,900	
" " South Sea,	3,400		
Elsewhere—Arctic,	66,000		
" Jap & Ochotsk,	6,000	72,000	
Total,			107,900

Menhaden oil is probably the most active article on the entire list. The market has finally touched 30c with sales at that figure, and sellers' views are now 31c, but the further advance has discouraged business for the present. The recent transactions have been large but covered up. The oil had been contracted for before made and there is little if any on the market although an effort was made on Monday to place a small lot of northern oil at 30c delivered which is believed to have been sold. Thus far the fishermen have experienced no difficulty in disposing of their product and as the purchases were made by pressers who anticipated the advance, the stock in second hands will not come on the market again, but it has supplied wants for some time to come. The impression that the liberal buying was made with the view of controlling the market is gaining in strength but it is thought that the elevated views of the fishermen and the better results at the factories will interfere with the plans. Pressed grades have been advanced to correspond with the crude quotations.

Mineral Oils.

There is no change to record in any department of mineral lubricating oils. Paraffine and black reduced oils seem to have the call at usual prices, and the latter are said to have taken the place of natural oils to some extent owing to the low price. Special attention is being given to sewing machine oils and occasionally we hear of new brands being placed upon the market. There is a large field for such grades but it is well occupied. Lubricants from Lima crude are still talked about, but from what we can learn they are not being offered on this market.

Oil Cake.

With the exception of a few offerings for forward delivery, there is no indication of business in the oil cake line. The nominal value of Western on spot is $23 50@23 75. The season is said to be unusually backward.

Wax, Lard, Tallow, Etc.

Hard grades of crude paraffine wax are scarce but there is no indication of an advance in price. The ordinary jobbing business is being done in 125@126 test at 4⅛@4¼c for the domestic trade. A bid of 4⅝c, however, has been made for an export lot of 125 test without ac-

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ceptance. There is some inquiry for 130@132 test which is a very scarce article on this market, and urgent wants have not yet been supplied. Refined wax has no new features.

Spermaceti is now offering at 29c, but only a small business is being transacted.

Lard for spot delivery has advanced to 11c, but the demand is irregular. Western steam is held at 10 90@11c, according to seller, and city steam at 10 50c, while refined lard is quoted at 11@12c, according to brand.

Lard stearine is nominal at 12¼c for city or Western, and oleo stearine is inactive at 10½c asked.

Tallow has been selling at 5¼c during the week, and this price is still bid, but sellers now want 5⅜c for city or 5½c for country.

Greases are also doing better and are in limited supply. White stearine is held at 6c, yellow at 4¼c and dark at 3¾@4¼c.

Naval Stores.

Spirits Turpentine—There has been no material change in the position of the market for this article since we last wrote. In consequence of the non-receipt of heavy supplies holders have been enabled to maintain prices, and more than this, for the price to-day shows an advance over that quoted for the same time last week. The trading has been on the jobbing order and only of moderate proportions, and no particular features can be noted. The market closed quiet to-day 41¾@42c quoted.

Rosin—Taken altogether, the movement in rosin may be characterized as fair, but by no means active. The pale grades have continued to be in better repute than the lower kinds, and have been sought for; but in order to obtain supplies, buyers have been forced to pay advanced rates, as holders were exceedingly firm in their views. At the close to-day the market was quiet on grades below K, while the others were firmer and wanted. The following figures were ruling: Strained, $1; good strained, $1 05; E, $1 12½; F, $1 17½; G, $1 20; H, $1 27½; I, $1 40; K, $1 55; M, $1 65; N, $2 00@2 10; W G, $2 75; W W, $3 10@3 20.

STOCK ON HAND AT

	Spirits.	Rosin.	Tar.
New York, Sept. 24...bbls	1,054	22,058	324
Savannah, Sept. 21.....	8,720	78,056	....
Wilmington, Sept. 22....	8,314	80,801	1,565
Charleston, Sept. 21.....	467	31,466	....
London, Sept. 17.....13,700	.. .		....

LONDON TURPENTINE STATISTICS.

Messrs. Watt & Son, London, under date of Sept. 8 say:

	1888.	1887.	1886.	1885.
Stock Sept. 8...14,545	14,143	17,997	29,913	
Delivered this week..... ..1,068	1,020	1,004	1,099	
Since Jan. 1....45,661	48,634	53,211	40,041	
Price Sept. 8....30s 0d	24s 9d	27s 6d	25s 9d	
Oct-Dec..... ..30s 6d	24s 9d	27s 9d	25s 9d	
Jan-Apl.....31s 6d	25s 3d	28s 0d	26s 9d	

Insect Powder.

Wm. Kirkby, a chemist, read an interesting paper on insect powder at a late meeting of he British pharmaceutical conference.

The inquiries of the writer lead him to believe that insect powder is very largely adulterated. The Trieste merchants for example, adulterate it, and for that reason Mr. Consul St. John has recommended that the Dalmation powder should be imported direct from Ragusa. As it seemed probable that a microscopic examination would lead to some interesting results, an attempt was made to get samples of the entire plants, Chrysanthemum cinerariafolium and C. Roseum; but the writer failed in this, and could obtain no information as to the cultivation of Dalmation insect powder. It is the unopened flowers of the wild variety of the former species which are supposed to yield the most powerful insect powder. The plant is a composite one, and in the florets of the ray the limb consists of an upper and a lower epidermal layer;the former of these has the cells developed into papillæ, which in the dry state contract laterally and break away easily, being afterwards found in the powder. The opposite sides of these cells enclose an angle, and the walls are finally striated; the lower epidermal cells have sinous walls and are elongated. Other points of note in the histology of the flowers are the spiral tracheæ of the nerve; the parencymous cells of the florets of the disk, each of which contains a solitary crystal or stellate tuft of crystals of calcium oxalate, and the papillæ of the stigma. Pollen grains are found in the powder in considerable quantity. Each is globular and furnished with spines; these and other characters which are afforded on examination render it possible to readily detect any admixture, such as mineral matters. starch, woody, sclerogiuons, or libriform tissues bearing hairs and the like. As regards the possible admixture of insect powder with the powdered flowers of C. roseum, the writer pointed out in the first place that, although the latter is cheaper, he had difficulty in obtaining a specimen, and when he had obtained it, he found, on examination, that the papillæ of the ray-florets are larger and much thicker at the apex than those of the true flower. and after a little experience, this characteristic can be easily recognized. It is advisable to steep the powder in a mixture of solution of potash (20 per cent.) and glycerine in equal parts before submitting it to examination under the microscope.

Messrs. Greenish, Symes, Conroy, Robinson, Benger, MacEwan, Gerrard, Masor, Martindale and Holmes, commented upon the communication. It was asked which powder was the most active, and whether the characters of the peduncle had been determined, as this was likely to be present. Insect powder was not adulterated in this country, but in those from which it was imported, and it was stated that the powder could be bought at so much as 40 per cent. below the price of the flowers. Fustic was mentioned as a common adulterant, combined with chrome. One speaker had little faith in microsaopical investigation, and justified his suspicions by cases in which very erroneous reports had been made. It was however, pointed out that the paper was the record of histological work, a thing very different to mere microscopic examination. The question was also raised as to the poisonous or stupefying action of the powder, and the opinion was expressed that the effect was that of local irritation. The general idea seemed to be that the action was really a poisoning one, as the tincture and infusion produced similar effects, and the theory that the active principle was a fatty substance was mentioned.

Mr. Holmes, in replying for the essayist said that his object was to make clear the characters of the genuine powder so that adulterations might be easily recognised. C. cinerariæfolium was regarded as the most powerful. Mr. Kirkby had also given a description of the structure of the peduncle. Mr Holmes inquired the grounds for believing that fustic was an adulterant, and was told that the statement was made on the authority of those who sold the powder. A volatile acid had been obtained from the plant which was worthy of more investigation. The speaker maintained, by reference to former investigations in the "Year Book" that the action of the powder was really toxic to insect life. He also mentioned that oil of cedar was an excellent remedy for praventing the attacks of flies. A member rose and said that he had found the remedy named worse than the disease, but Mr. Holmes added that he spoke from experience.

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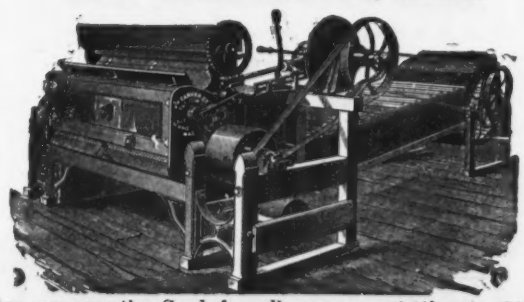

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CINCINNATI, O.,

Manufacturers of all Grades of

COTTON OIL.

Crude Cotton Oil,
Summer Yellow Cotton Oil,
Summer White Cotton Oil,
Winter-Strained Cotton Oil,
White Cottonseed Stearine,
Yellow Cottonseed Stearine,
Cottonseed Soap Stocks.

Winter Miners' Oil and Brewers' Lamp Oil (White and Yellow,) Especially prepared for burning purposes and guaranteed to remain bright and limpid at 32 deg. Fahr.

Empire Salad Oil, A strictly Winter-Strained Oil, especially prepared for druggists' and culinary purposes, guaranteed to remain bright and Limpid at 32 deg. Fahr.

A. C. O. Co., J. V. L. & Co and I X L Cooking Oils, purely vegetable. Recommended to and extensively used by bakers, hotels and private families.

Owing to our close connection with the manufacturers of the crude oil and our superior facilities, we are in a position to defy competition and to furnish our products at lower prices than can be made by other refiners.

QUOTATIONS FURNISHED UPON APPLICATION.

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PROVIDENCE, R. I., AND NEW ORLEANS LA.

ESTABLISHED 1855.

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Crude, Summer White and Yellow, Winter White and Yellow.

DURE SALAD OILS, OLIVE FLAVORED

SALAD OILS IN BOTTLES AND CASES.

WHITE AND YELLOW STEARINE.

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DEALERS in Gasolene Stoves are aware of the importance of having a pure and reliable article of gasolene to supply to their customers. As ordinarily prepared by refiners, Deodorized 74° Gasolene fails to give entire satisfaction, from its liability to gum and clog the burners. Wherever this occurs, endless annoyance ensues, and dissatisfaction with the stoves is the inevitable result. All this may be avoided by the use of **Pratt's Deodorized Stove Gasolene,** which is refined with the greatest care to insure absolute purity, and with due regard to the requirements of these stoves. Dealers can furnish this to their customers with the confidence that it will give perfect satisfaction. We guarantee that it will neither clog the burners nor emit any offensive odor.

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Pratt Manufacturing Company

26 BROADWAY, NEW YORK,

SOLE PROPRIETORS AND REFINERS OF PRATT'S ASTRAL OIL.

PETROLEUM MARKET.

TUESDAY EVENING, Sept. 25, 1888.

The week under review has been notable for the extreme dullness in speculative transactions, the sales averaging considerably less than 800,000 barrels per day. The extreme depression which has prevailed during the greater part of the time has also attracted considerable attention, though the fear of a further break in values has deterred operations on the long side, while the shorts have not had an opportunity to operate to any extent at the higher figures, owing to the limited amounts that could be sold. The market has been peculiarly susceptible to trading influences, a moderate amount of bidding causing an advance, while it required only a few anxious sellers to create distrust and induce a downward course of the figures. The situation is not materially changed, the deliveries continuing to show a large excess over the runs, showing that the decrease in stocks goes on steadily. The old fear, however, that the producing fields will develop some important territory, or at least some important wells that will materially alter the present relation of production and consumption, appears again to pervade the average speculative operator, and tends to make him extremely cautious in his dealings. The outside public still continues to give petroleum a wide berth, whethgr owing to lack of confidence in the stability of values or owing to more attractive openings for profitable speculative investment may not be quite clear, though probably the latter is the case as the situation is stronger than ever before, and prices must eventually respond to the influence of decreasing stocks. Lack of confidence, however, doubtless still keeps many from turning attention to petroleum, the regular operators themselves showing a nervous apprehension of possible disaster that is not without its influence upon the public. The developments of the next few weeks are awaited with unusual interest. The transactions during the past week show a decrease from those of the previous week, the sales footing up 4,432,000 bbls against 6,935,000 bbls for the preceding week. The clearances of the local exchange amounted to 18,481,000 bbls, against 23,062,000 bbls during the preceding week. The total clearances reported for the other four exchanges amounted to 54,785,000 bbls against 50,975,000 bbls for the preceding week. The highest price of the week was reached Wednesday and again to-day, when 94⅜c was touched. The lowest point of the week was 90¾c, and was touched on Saturday and Monday. The opening price last Wednesday was 93⅝c, and the close this evening was at 92⅞c, showing a loss as the result of the week's trading of ¾c, while the extreme range of fluctuations for the week was 3⅝c.

The attention of the trade is now centered on the Clarion field, where the Cadwallader wells have supplied sensational reports of big production. The Piper well, which flowed three times on Friday night, making 25 bbls, stopped Saturday morning and was drilled deeper without improvement, and operations stopped for fear of salt water. It makes a fair pumper. There have been some sensational stories told about Cadwallader's No. 4, otherwise known as the Newmarket farm No. 1. This well is situated 275 feet south and west of Cadwallader No. 2. A special from Clarion to the Pittsburg *Dispatch* says the Newmarket is the biggest gusher in the field and was doing two bbls per minute. The facts, as reported by the scouts, are that it was drilled in late Saturday afternoon and started off at the rate of 275 bbls a day, which means that it is a small well, and its short distance from the gusher indicates a narrowing of the belt in a southwesterly direction. Cadwallader & Co., on the Barber lot, is making 90 bbls per hour actual measurement. Cadwallader & Co., on Greenland lot, are pumping 100 bbls per day. Cadwallader & Co., on Edwards's lot, are pumping 150 bbls per day.

Christie & Haymaker's No. 2, on the John Foertsch farm, Saxonburgh, is through the sand and dry.

Wednesday, Sept. 19.

The market opened this morning somewhat weaker and the first sale made was at 93⅝c, showing a loss of ¼c since the close of last evening. There was little life to trade, though offers to buy were met with increasing figures, but as bidding ceased the price dropped and after about an hour's light trading the lowest price of the day was reached at 92⅜c. There was little improvement in trading following the decline, but the scalpers operated sufficiently to cause fluctuations and matters were allowed to drift along without any special effort to influence prices until late in the day, when in improvement in the stock market appeared to have a strengthening and reassuring effect which brought buyers into the pit and the price was sent up rapidly, reaching its highest point at 94⅜c near the end of the session, though the close was rather weak at 94c. This made a gain for the day of ⅝c under a range of 2c. The sales footed up only 875,000 bbls. The reports from the scouts were to the effect that the Guffey well on the Kyle farm, at Bakerstown, was in the shell on top of the sand with tools fast. The Kennedy well at Brush Creek was expected to come in late to-day. The Caldwell test well at Taylorstown, proved to be a dry hole.

The half-hourly quotations were as follows:

A.M.		P.M.	
10:00	93⅝	12:30	92⅞
10:30	93¾	1:00	93
11:00	93⅝	1:30	93⅛
11:30	93⅛	2:00	93¼
12:00	92⅝	2:30	94
		3:00	94

The clearances were as follows: New York, 4,629,000; Oil City, 3,620,000; Pittsburg, 4,028,000, Bradford, 2,096,000; Philadelphia, 652,000; total clearances Sept. 19, 15,027,000 bbls.

Carrying rates were: New York, 15@20c; Oil City, 30@35c; Pittsburg, 30c; Bradford, 20@25c.

Market Sept. 20, 1887—63⅝@65⅞c.

Thursday, Sept. 20.

Whatever of strength there was was exhausted at the opening, which was at 94c, the market easing off gradually and soon drifted into a rut from which it seemed difficult to lift it. Trading was very light, in fact at times there was none at all, an occasional bid or offer to sell being the only indication that those present were there for the purpose of transacting business. The price varied but a few points for the greater part of the time, but late in the day some of the holders, fearing a raid, began to offer their oil with the effect of causing a drop to 92¼c and the close was at 92⅜c, making a loss for the day of 1⅝c unper a range to quotations of 1¾c. Trading was very dull, the sales footing up only 595,000 bbls. There was nothing in the way of news to relieve the monotonous dullness until the break at the close when the first and only appearance of lively interest was noticeable. From Clarendon it was reported that the Cadwallader No. 1 was doing 135 bbls a day, the No. 2, 60 bbls per hour, and the No. 3 after flowing three hours stopped and later pumped at a 30 bbl a day rate.

The half-hourly quotations were as follows:

A.M.		P.M.	
10.00	94	12.30	93¼
10:30	93 ¼	1:00	93¼
11:00	93⅜	1:30	93⅛
11:30	93⅛	2:00	93⅜
12:00	93⅜	2:30	93⅜
		3:00	92⅜

The clearances were as follows: New York, 3,188,000; Oil City, 3,458,000; Pittsburg, 4,201,000; Bradford, 1,510,000; Philadelphia, 538,000; total clearances Sept. 20, 12,895,000 bbls.

Carrying rates were: New York, 30@35c; Oil City, 30@35c; Pittsburg, 35c; Bradford, 25c.

Market Sept. 21, 1887—64⅜@66⅜c.

Friday, Sept. 21.

The market opened at 92¼c, and gradually weakened under light trading, soon going below 92c, but rallied a little and finally developed 92¼c as the highest price of the day during the noon hour. Then followed a sharp decline and the lowest price touched at 91⅝c. Late in the day there were several sharp fluctuations and during this time there was fair trading, but business as a whole was light and there were no features of interest. The short interest was smaller; the operators on the long side did not offer figures that would tempt short sales. The close developed a weak feeling with the final quotation 91¾c. This made a loss for the day of ½c under a range of ⅞c. The sales footed up only 677,000 bbls. In the Clarion field the Cadwallader No. 2 stopped flowing at 1 A. M., and made a flow of four minutes at 6:30 A. M., but after further drilling flowed moderately, and when two bits had been drilled increased to 41 bbls an hour. The Cadwallader No. 3 pumped 43 bbls the past 24 hours. The Piper well, 300 feet north of the Cadwallader No. 2, reached the sand and when down two bits showed some oil.

The half-hourly quotations were as follows:

A. M.		P. M.	
10:00	92¼	12:30	92¼
10:30	92	1:00	92¼
11:00	92¼	1:30	92¼
11:30	92⅛	2:00	91⅞
12:00	92¼	2:30	92
		3:00	91¾

The clearances were as follows: New York, 2,230,000; Oil City, 2,742,000; Pittsburg, 4,454,000; Bradford, 1,230,000; Philadelphia, 504,000; total clearances Sept. 21, 11,166,000 bbls.

Carrying rates were: New York, 25@30c (renewals 25c); Oil City, 35@40c; Pittsburg, 30c; Bradford, 30@35c.

Market Sept. 22, 1887—65⅞@69c.

Saturday, Sept. 22.

A number of shorts were on hand at the opening to cover their previous sales, and when the first sale was effected at 91⅞c it did not check their efforts to cover. In a short time the price was run up to 92⅛c, but this appeared to be beyond their limit and bidding ceased, while the fractions began to drop. The impression appeared to become prevalent that a lower range of prices would prevail later, and offers to sell at ever decreasing figures elicited little attention. Shortly before noon the price dropped below 91c, which brought out some buyers, and the lowest point reached was 90¾c, the buying bringing about a reaction, which made the closing figures 91⅛c. This made a loss for the day of ¾c, under a range to quotations of 1⅜c. The session was a tame and uninteresting one, with no features worthy of note. The sales footed up only 375,000 bbls. In the Clarion field the Cadwallader No. 2 was doing 20 bbls per hour this morning. The Cadwallader No. 4 was near the sand, which they hoped to reach before night. Piper & Co.'s well on the Campbell lot did 24 bbls in the first twelve hours.

The half-hourly quotations were as follows:

A. M.		A. M.	
10:00	91⅞	11:00	91⅛
10:30	91⅝	11:30	91⅛
		12:00	91⅛

The clearances were as follows: New York, 2,406,000; Oil City, 2,302,000; Pittsburg, 3,420,000 Bradford, 1,064,000; Philadelphia, 450,000; total clearances Sept. 22, 9,642,000 bbls.

Carrying rates were: New York, 35@40c (renewals 25c); Oil City, 30@35c; Pittsburg, 35c; Bradford, 25c.

Market Sept. 23, 1887—67¼@69c.

Monday, Sept. 24.

The feeling this morning was weak, and the best price that could be obtained was 90⅞c, but from this there was a loss of but one point, making the lowest price of the day 90¾c. An improvement in the stock market and reports coming early in the day of liberal buying on the Western exchanges, brought about a stronger feeling and buyers came to the front, sending the price up rapidly, 92c being passed before the end of the first half hour and 93c before noon. The advance was steady, encountering few checks, the highest point being 94¼c, and was scored shortly after two o'clock. This checked operations, but the reaction was slight, and the market closed strong at 93⅞c. There was more confidence shown, and the close developed a fair long interest, though there was a fair sprinkling of shorts who had covered at the lower figures only to again sell short at the advance. It is the current belief that there is a large short interest at the West, and that an effort will be made to squeeze them. The close showed a gain for the day of 3c, under a range of 3½c. The trading showed marked improvement, the sales footing up 1,018,000 bbls. In the Clarion field the Cadwallader No. 2 was agitated yesterday, after which it produced 45 bbls per hour. The No. 4 struck the sand late on Saturday and started off at the rate of 270 bbls a day, giving promise of a moderate producer.

The half-hourly quotations were as follows:

A M.		P.M.	
10:00	90⅞	12.30	93⅛
10:30	92¼	1:00	93⅝
11:00	92⅝	1:30	93⅜
11:30	93	2:00	93¼
12:00	93½	2:30	93¼
		3:00	93⅞

The clearances were as follows: New York, 1,818,000; Oil City, 5,200,000; Pittsburg, 2,770,000; Bradford, 820,000; Philadelphia, 276,000; total clearances Sept. 24, 9,344,000 bbls.

Carrying rates were: New York, 25@30c (renewals 25c); Oil City, 30@35c; Pittsburg, 30@35c; Bradford, 25c.

Market Sept, 24, 1887—67½@69c.

Tuesday, Sept. 25.

The initial figure this morning was 93⅝c, ¼c under the close of last evening, but there was sufficient strength to prevent a further drop and as reports came from the Western markets of fair buying a few points were gained. There appeared to be little disposition to operate on the part of the heavyweights and the scalping operations on the part of the rank and file were of a limited character. During the noon hour a stronger tone prevailed and under fair bidding the highest price of the day was made 94⅜c, shortly after 1 o'clock. The advance stimulated trading somewhat, but at and above 94c there was more sellers than buyers and during the prevalence of the higher figures a change in the relative strength of the long and short interest took place. The market continued strong, however, until shortly before the end of the session when there came a break and the bears did their best to hammer the market with the result of bringing the lowest price of the day down to 92⅞c; and this was also the closing figure. This made a loss for the day of ¾c, while the range to quotations was 1½c. Trading for the most part was dull, though during the advance at noon and the decline near the close a fair degree of activity prevailed. The sales footed up only 882,000 bbls. At Reibold the Guckert Gelbach, No. 7, started off last night at a 46 bbls per hour rate. Guffy Kyle well is expected to reach the sand to-morrow. At Clarion the Cadwallader No. 2 was agitated yesterday, and is doing 50 bbls per hour, The other new wells in that vicinity will probably be pumpers.

The half-hourly quotations were as follows:

A.M.		P.M.	
10:00	93⅞	12:30	93¼
10:30	93⅛	1:00	94
11:00	93¾	1:30	94⅛
11:30	93¼	2:00	93⅞
12:00	93⅝	2:30	94⅛
		3:00	92⅞

The clearances were as follows: New York 4,204,000; Oil City, 3,008,000; Pittsburg, 4,574,000 Bradford, 2,020,000; Philadelphia, 778,000; total clearances Sept. 25, 14,594,000 bbls.

Carrying rates were: New York, 15@20c (renewals 25c). Oil City, 25@30c; Pittsburg, 30c; Bradford, 25@30c.

Market Sept. 26, 1887—67¾@68¾c.

The amount of daily sales and total for the week follow:

Date.	Bbls.
Sept. 19	875,000
" 20	595,000
" 21	677,000
" 22	375,000
" 24	1,018,000
" 25	892,000
Total for the week	4,432,000

Following is given the opening, highest, lowest and closing figures for each day, in tabulated form for comparison:

	Opening.	Highest.	Lowest.	Closing.
Sept. 19	93⅝	94⅜	93⅛	94
" 20	.94	94	92¼	92⅝
" 21	92¼	92¼	91⅝	91¾
" 22	91⅞	92⅛	90¾	91¼
" 24	90⅞	94¼	90¾	93⅞
" 25	93⅝	94⅜	92⅞	92⅞

The total clearances during the week at the several petroleum exchanges foot up as follows:

New York	18,481,000	
Oil City	19,390,000	
Pittsburg	23,447,000	
Bradford	8,740,000	
Philadelphia	3,208,000	
		54,785,000
Total		73,266,000

The demand for refined in barrels for export has shown considerable improvement during the week under review, which was partly due to a better supply of vessels seeking petroleum charters. Shippers place orders freely whenever vessels are to be secured though there has been but little change in the rates demanded for freight. Shippers claim, however, there is no urgent demand from the other side that warrants the fear expressed in some quarters that the refiners here would be unable to supply the demand should vessels be available to carry all the oil that will be required during the ensuing two months. They claim further that notwithstanding we are now in the busiest season the amounts sent forward are sufficient to prevent a reduction in stocks and that there will be no extraordinary demand later in the season in consequence of earlier comparatively small shipments. It may be taken for granted, however, that the demand will continue fairly active during the balance of the year. The sales for the week show a considerable increase, footing up about 150,000 bbls. The price of 70° Abel test has remained steady at 7¾c and no immediate change is looked for. The principal foreign markets are lower. To-day's quotations by cable are: Antwerp, 20½f; Bremen, 8 05m; London, 7d, and Liverpool, 7⅛@7¼d. Freight rates show little change though some charters have been effected at slightly lower figures. Hence to London 3s 6d@3s 9d is the range and the Continental ports 3s 6d@4s 3d as to port and vessel. Home trade lots have been in good request and continue steady. We quote 8@9c for State legal test; 8½@8¾c for 110 test: 8¾@8⅞c for New York City 100° flash., and 10@10¼c for 150° water white. Western lots are held firm at the same figures.

Cases for export have been neglected and only a few sales are reported. The scarcity of desirable vessels is given as the cause. The price for plain tops has remained steady at 9¾c. Freight rates continue high, with desirable vessels scarce. The nominal rates for large vessels are: For Java, 30@31c; Japan, 37@38c; Calcutta, 35@36c; Bombay, 31@32c; Rangoon, 30@31c; Singapore, 32@33c; Hong Kong, 30@31c; and for Shanghae, 31@32c.

Crude in barrels for export has continued in fair request and sales of over 20,000 bbls are reported. Prices have remained steady at 6¾c for Bradford and 7¼c for Parker. Cases for export have received some attention, and sales of 12,000 are reported. Prices are steady at 8⅝@9¼c.

Prime city naphtha has been advanced to 7½c. For export there has been no demand and no sales are reported.

Western residuum is quoted at 1¾@2c f. o. b. Barrels are quoted at 5@5½c. No sales are eported for export.

Closing Quotations.

CRUDE.

National Transit Certificates	₱ bbl.	92⅝@ 93
In bbls	₱ gal.	6¾@ 7¼
In cases		8¾@ 9¼
Residuum, bbls, for export 18@22°.		5½@ 6
for domestic use f o b		1¾@ 2

REFINED, IN BARRELS.

Cargo lots, Abel test	₱ gal.	7¾@ —
Philadelphia loading		7¾@ —
Baltimore loading		7¾@ —
50 bbl lots, f. o. b. or on dock		8¾@8⅞
10 bbl lots, f. o. b. or on dock		9 @9¼

HIGH TEST OILS—JOBBING LOTS.

110 fire test, S. W	₱ gal.	8¼@ —
120 fire test, S. W		8½@ —
130 fire test, S. W		9 @ —
State test		9½@ —
150 fire test, W.W		10 @10½
300 fire test		10½@11½
New York city, 100 flash		8⅝

REFINED IN CASES, 110 FIRE TEST.

Two-five, low screw, 10,000 lots		9¾@ —
5,000 to 10,000		9¾@10
1,000 to 5,000		10 @10¼
200 to 1,000		10¼@10½
Under 200		10½@10¾

NAPHTHA AND GASOLINE.

Naphtha, crude, cargo lots, 68@72 deg		—@ 7½
Naphtha, crude, car lots, 68@72 deg		7½@ 7¾
Naphtha, crude, 70 deg		8½@ 9½
Sweet, 62 deg		8½@ 9¼
70 deg		9 @10
76 deg		9½@10¼

Gasoline, 86 deg	13 @14
88 deg	15 @16
90 deg	18 @19

EMPTY PETROLEUM BARRELS.

Cargoes, spot	$1 02½@1 05
Domestics, on dock	1 00 @1 02½
Subject to inspection	1 05 @ —

Petroleum Statistics.

RUNS—TOTAL AND AVERAGE.

	Day.	Total.	Av'ge
Mon. Sept. 17	52,210	628,950	36,997
Tues. " 18	45,838	674,797	37,488
Wed. " 19	45,644	720,441	37,917
Thurs. " 20	44,326	764,767	38,238
Frid. " 21	42,027	806,794	38,418
Sat. Sun. 22 & 23	48,664	855,438	37,193
January, 1888		1,048,641	31,827
February		1,175,102	40,529
March		1,193,133	38,488
April		1,200,977	40,032
May		1,301,015	41,968
June		1,289,616	42,987
July		1,260,486	40,660
August		1,285,558	41,469
September, 1887		1,648,421	54,947
October		1,751,676	56,506
November		1,125,300	37,513
December		1,223,648	39,472
Year, 1887		20,209,983	55,315

DELIVERIES—TOTAL AND AVERAGE.

	Day.	Total.	Av'ge
Mon. Sept. 17	83,266	1,260,600	74,153
Tues. " 18	96,743	1,357,343	75,408
Wed. " 19	89,757	1,447,100	76,163
Thurs. " 20	76,968	1,524,068	76,203
Frid. " 21	66,193	1,590,261	75,727
Sat. Sun. 22 & 23	109,179	1,699,440	73,627
January, 1888		2,225,975	71,806
February		2,115,803	72,938
March		1,980,963	63,902
April		1,830,522	61,017
May		1,676,794	54,090
June		1,677,330	55,911
July		1,933,873	62,383
August		2,105,343	67,914
September, 1887		2,140,295	71,343
October		2,383,707	76,894
November		2,403,307	80,777
December		2,419,617	78,032
Year, 1887		25,519,175	69,916

CHARTERS—TOTAL AND AVERAGE.

	Day.	Total.	Av'ge.
Mon. Sept. 17	80,518	793,566	46,618
Tues. " 18	54,405	847,971	47,109
Wed. " 19	27,222	875,193	46,063
Thurs. " 20	79,365	954,558	47,728
Frid. " 21	27,023	981,581	46,742
Sat. Sun. 22 & 23	35,238	1,016,819	44,209
January, 1888		914,199	29,490
February		1,199,169	41,351
March		998,923	32,223
April		973,206	32,440
May		1,257 607	40,892
June		1,219,188	40,640
July		1,539,147	42,908
August		1,221,935	39,417
September, 1887		1,302,513	43,417
October		1,411,578	45,542
November		1,130,709	37,357
December		1,011,903	32,655
Year, 1887		15,204,735	41,657

CHARTERS FOR THE WEEK.

The total charters for refined in barrels and cases, crude in barrels and cases, naphtha, &c., during the week ending September 25, were as follows:

Refined, bbls	173,900
Refined, cs	32,000
Crude, bbls	23,000
Crude, cs	12,000
Naphtha, bbls	
Residuum, bbls	
Lubricating	
Total, crude equivalent	316,427

CLEARANCES FOR THE WEEK.

During the week ending Sept. 24, the clearances of petroleum, in gallons, from the port of New York were as follows:

Refined	8,140,713
Crude	574,867
Naphtha	
Residuum	
Total	8,715,580

EXPORT STATISTICS.

The following table shows the total exports from the port of New York and from the United States, reduced to crude equivalent, in gallons, for the week ending September 15; also, the total shipments to date, with comparisons with 1887:

Exports from New York for week ending Sept. 15	6,539,463
Total exports from New York from Jan. 7, 1888	305,255,645
Same period last year	338,811,276
Decrease	33,555,631
Exports from U. S. for week ending Sept. 15	6,539,463
Total exports from U. S. from Jan. 1, 1888	414,823,335
Same period last year	467,412,327
Decrease	52,588,992

TOTAL EXPORTS FROM DIFFERENT PORTS.

	1888.	1887.
New York	305,255,645	338,811,276
Philadelphia	101,254,380	121,770,808
Baltimore	4,541,647	4,381,202
Boston	2,037,735	2,449,041
Perth Amboy	1,714,230	
San Francisco	19,680	
Grand total	414,823,335	467,412,327

CAPACITY OF VESSELS LOADING.

The following table gives the capacity of the vessels loading petroleum at the ports of New York, Philadelphia, Baltimore and Boston on September 24:

	NEW YORK. Bbls.	Cases.	PHILADELPHIA. Bbls.	Cases.
Refined	213,400	405,000	51,700	113,500
Crude	52,000	....	27,500	....
Naphtha	....	....	....	....
Total	265,900	405,000	79,200	113,500
	BALTIMORE. Bbls.	Cases.	BOSTON. Bbls.	Cases.
Refined	....	....	7,800	.
Crude	....	....	..	.
Naphtha	....	....	.	.
Total	....	....	7,800	...

Foreign Statistics.

REFINED QUOTATIONS.

	Antwerp.	Bremen.	London.
Wed. Sept. 19.	20¼@—	8.15	7⅜@7¾
Thur. " 20.	20¼@—	8.15	7⅛@7⅜
Fri. " 21.	20¼@—	8.10	7⅛@7⅜
Sat. " 22.	20¼@—	8.10	7⅛@7⅜
Mon. " 24.	20¼@—	8.10	7 @
Tues. " 25.	—@20½	8.05	7 @

STOCKS, RECEIPTS AND SHIPMENTS.

The statistical situation at the seven principal continental ports on September 8, was:

	1888.	1887.
Stock, Sept. 8	488,679	839,666
Afloat "	327,753	290,575
Loading "	188,800	193,700
Total	1,005,232	1,293,941
Receipts Sept. 1 to Sept. 8	83,788	83,454
Rc'ts July 1, '88, to Sept 8, '88	820,727	1,095,783
Shipments Sept. 1 to Sept. 8	92,218	111,781
Shp's July 1, '88, to Sept. 8, '88	703,659	729,611

At London the statistical situation on the same date was made up as follows:

	1888.	1887.
Stock, Sept. 8	163,163	181,619
Afloat "	7,000	....
Loading "	67,700	42,100
Total	237,863	223,719
Receipts Sept. 1 to Sept. 8	....	32,171
Rec's July 1, '88, to Sept. 8, '88	108,785	188,049
Shipments Sept. 1 to Sept. 8	11,071	17,207
Shp'ts July 1, '88, to Sept. 8, '88	102,832	109,545

Petroleum Charters.

Following is a list of vessels chartered and loading or to load petroleum at New York, Philadelphia, Baltimore and Boston:

NEW YORK.	Bbls. Refd.
July 6	
Ger sh J Weissenhorn, Continent, 2s 6d	13,000
July 13	
Ger sh Deutschland, Continent, p t	7,500
July 16	
Am sh Saml. Scolfield, Calcutta, 20¼c	cs 60,000
July 20	
Ger ship Barbarossa, Continent, p t	8,500
Ger ship Oberon, Continent, p t	8,000
Ger ship Camelia, U K or Cont, p t	7,500
July 24	
Ger shp Dora, Bremen or Hamburg, p t	8,700
Br bk Galatea, Continent, p t	8,000
Ger bk Astronom, Continent, p t	5,300
Am shp Wildwood, Japan, p t	cs 60,000
It bk Plinio, Java, p t	cs 45,000
It bk Rosa, Waterford, 3s 6d	3,000
Br sh Silberhorn, Liverpool, 3s	11,000
Br bk Savannah, Bristol, 3s 6d	4,500
July 26	
Am sh Chas. Dennis, Calcutta, pt	cs 60,000
July 27	
Br sh Beaconsfield, Antwerp or London, 3s	10,000
Br sh Avonia, Continent, p t	10,500
July 28	
Aus bk Leonora, China sea, p t	cs 55,000
Br sh Vandalia, U K or Cont, p t	9,700
Br sh Z King, U K or Cont, 3s 3d	8,400
Br sh Harvest Queen, London, 3s	12,000
Br sh Cumberland, U K or Cont, p t	9,500
July 30	
Dtch bk Melati, Cont, pt	6,600
Nor bk Lorley, Baltic, pt	3,300
Nor sh B D Metcalf, Cont, pt	7,800
Nor sh N B Palmer, Cont, pt	6,400
Bk —, Irish port, 4s	4,500
July 31	
Br sh Revolving Light, Bristol, 3s 3d	8,500
Nor bk Ajax, Cont, pt	5,100
Nor bk Tordenskjold, Cont, pt	7,500
Aug 1	
Swed bk Freia, Baltic, p t	4,000
Nor bk Ariadne, Bergen, 2s 11d	4,000
Nor bk Arracon, Danish port, 3s 3d	4,500
Ger bk Cuba, Continent, 3s 3d	7,200
Am bk Edward Kidder, Penang or Singapore, p t	cs 32,000
Aug 2	
Br sh J I Smith, London or Ant'p, 3s 3d	8,400
Aug 3	
Br bk Scotland, Cont, pt	9,000
Br sh Beethoven, Cont, pt	6,000
Br sh Servia, Continent, p t	8,500
Br sh Conductor, London or Antwerp, p t	7,000
Br bk Nimbus, U K or Continent, p t	7,500
Aug 4	
Br sh Record, L'pool or Bristol, 3s 4½d	12,000
Ger bk Blucher, Bremen, Hamburg or Antwerp, 3s 3d@3s 4½d	7,200
Aug 6	
Br bk Avoca, U K or Cont, p t	9,500
Am sh Caravan, Rotterdam or Antwerp, 3s 6d	9,200

Exports of Petroleum from New York

REFINED.

COUNTRIES.	Week Ending Sept. 24. Gals.	Jan. 1 to Sept. 17. 1888. Gals.	Jan. 1 to Sept. 19 1887. Gals.
Africa, Liberia		25,653	22,040
Sierre Leone		50	
South Africa	78,550	955,885	1,358,681
Zanzibar		353,500	300,000
Algiers		1,276,330	1,203,790
Arabia		190,000	1,150,000
Argentine Republic	45,000	2,174,453	2,488,750
Australia	89,680	6,147,377	3,439,387
Austria	123,878	14,155	276,700
Belgium		18,706,002	22,721,592
Brazil	258,962	6,209,456	4,530,851
British East Indies, Aden		445,000	270,000
Burmah	325,530	1,992,980	1,737,250
India		17,162,840	16,284,580
Penang		630,000	607,600
Singapore		1,297,558	1,676,760
British Guiana	5,000	337,049	396,371
British West Indies, Antigua	2,000	29,650	34,180
Barbadoes	5,000	256,956	187,120
Basse Terre		41,220	129,904
Bermuda	6,362	86,070	77,923
Domenica		7,620	20,190
Jamaica	26,074	459,626	378,116
Montserrat		3,450	3,200
Nassau		42,774	37,805
St. Lucia	1,040	23,836	12,902
St. Vincent		19 945	25,745
Trinidad	5,000	202,860	190,181
All others	3,653	69,505	17,476
Canary Islands		132,350	136,840
Central America, Belize		44,336	59,902
Costa Rica	401	63,793	44,331
Guatamala	2,000	46,478	66,516
Honduras	170	24,033	25,030
Nicaraugua	200	110,908	187,479
San Salvador	500	40,510	62,562
Chili		2,386,750	1,156,165
China, Cochin		2,386,750	1,930,546
All other	315,000	9,411,850	11,086,898
Cuba	2,500	452,042	646,368
Danish West Indies		33,724	39,613
Denmark		3,308,758	3,143,413
Dutch East Indies, Java	480,000	11,938,520	14,305,439
Macassar		73,140	256,000
Sumatra		325,000	330,000
Dutch West Indies	2,222	78,135	71,449
Dutch Guiana	15,000	109,581	20,400
Ecuador	113	93,290	74,470
England	1,119,978	27,759,064	33,596,787
Egypt		498,150	3,307,490
France	120,613	990,123	2,461,364
French Guiana	3,100	17,100	16,970
French West Indies	2,000	298,077	234,455
Germany	2,210,113	63,060,474	55,861,119
Gibraltar	56,700	383,700	547,419
Greece			120,000
Hawaiian Islands		100,000	39,640
Hayti	1,120	275,059	155,139
Ireland	116,420	3,045,397	3,878,502
Italy	1,720	627,987	1,203,651
Japan	652,850	7,355,610	8,074,110
Mexico	1,000	1,472,133	760,634
Malta		120,880	473,000
Mauritius Island		14,750	
Netherlands	2,189,244	15,869,466	24,822,925
North America, New Brunswick	61,350	461,585	479,013
New Foundland		164,978	126,021
Nova Scotia	44,000	250,493	206,156
Prince Ed. Island		164,450	161,250
Norway and Sweden	76,362	5,271,786	6,298,449
Peru	120	210,829	98,978
Porto Rico	2,450	489,195	379,420
Phillippine Islands		317,000	222,640
Portugal	10,000	700,648	636,890
Reunion		74,500	72,030
Russia		145,820	95,874
Scotland			
Siam		857,050	530,680
Spain		175,700	782,190
Turkey		435,764	2,094,894
U. S. of Col	5,600	520,293	388,477
Uruguay		939,290	2,489,820
Venezuela		570,909	718,349
Wales	26,809	143,766	121,288
Total	8,140,713	225,664,950	244,780.33

CRUDE.

COUNTRIES.	Week Ending Sept. 24. Gals.	Jan. 1 to Sept. 17, 1888. Gals.	Jan. 1 to Sept. 19, 1887. Gals.
Australia			
Austria			
Belgium			
Brazil			
British Guiana			
British West Indies		248	
Chili			10,000
Central America			499
Cuba	206,312	2,218,243	3,413,589
Danish West Indies			
Dutch West Indies			
England			213,217
France	574,867	16,170,955	12,254,081
Germany		1,230,503	1,084,659
Hawaiian Islands			2,525
Mexico		991,510	670,839
British North America			
Norway and Sweden		187,230	
Spain		7,548,282	6,155,829
Uruguay			
Total	781.179	28,068,873	24,795.230

NAPHTHA.

COUNTRIES.	Week Ending Sept. 24. Gals.	Jan. 1 to Sept. 17, 1888. Gals.	Jan. 1 to Sept. 19, 1887. Gals.
Africa			96
Algiers			5,000
Argentine Republic		1,625	
Australia		48	
Belgium		223,244	184,500
Brazil		12,540	120,851
British West Indies			198
Central America			
Chili		237	
Cuba			
Denmark			
England		1,923,208	2,694,267
France		2,267,163	1,328,313
Germany		525,360	
Hayti			10
Ireland		7,659	5,118
Mexico			
British North America		1,800	2,050
Norway and Sweden		348,873	427,429
Portugal		79,700	1,760
Russia			
Turkey			
Uruguay			
Venezuela			19,000
Total		5,406,457	4,793,272

Aug 7
Br bk M & E Cox, Bristol, p t..... 7,000
Br bk John Trakey, Antwerp, Rotterdam or Amsterdam, 3s 7½d..... 7,600
Br sh McDougall, Antwerp, Rotterdam, or Amsterdam, 3s 7½d..... 7,100
Br sh Joseph, Continent, 3s 3d..... 10,000
Br bk Landskrona, Continent, 3s 3d..... 8,500
Br sh Ellerslie, London, 3s 6d..... 9,000
Aug 8
Br bk Peacemaker, London, 3s 6d..... 6,700
Br sh Annie E Wright, Antwerp, 3s..... 11,000
Br bk Canute, Continent, p t..... 7,500
Br bk Snow Queen, Continent, p t..... 6,000
Br sh Colchester, U K or Cont, p t..... 8,500
Br bk Truro, U K or Cont, p t..... 5,400
Am bk Obed Baxter, Java, p t..... cs 32,000
Aug 9
It bk ——, Marseilles, 4s..... cde 4,000
Aug 10
It bk Gemma C, Java, p t..... cs 28,000
Aug 15
Br bk Ruth Palmer, Dunkirk, 3s 9d...cde 6,000
Aug. 16
Br bk Raguar, Liverpool, 3s 10½d....nap 6,000
Aug 17
It bk Virgine de.la Guardia, Marseilles, 3s 9d..... cde 5,000
It bk San Francisco, Marseilles, 3s 9d.cde 5,000
Aug 18
It bk La Marinccia, Marseilles or St Louis du Rhone, 4s 3d@4s 6d.... .....cde 3,600
Aug 20
Nor bk Alsen, Baltic, 3s 10½d..... 3,000
Nor bk Margaretha Blanca, Baltic, p t... 3,500
Aug 21
It bk Marie, Marseilles, 4s 9d, or St. Louis du Rhone, 5s..... 2,400
Aug 22
Br sh Falls of Halladale, Calcutta, p t.cs 80,000
It sh Columbus, Marseilles, 4s 11d.....cde 7,500
Aug 23
Ger bk Duppel, Baltic, p t..... 3,500
Dutch bk Martena Johanna, U K or Cont, p t..... 5,000
Br sh ——, U K, 3s 3d..... 9,000
Br sh ——, U K, 3s 3d..... 8,000
Br sh ——, U K, 3s 3d..... 7,000
Aug 24
Nor bk Anna, Christiana, p t..... 2,700
Span str Suskaro, U K or Cont, 4s 4½d... 9,000
Aug 27
Am bg Tarifa, Dublin, 4s 6d..nap 250 and 2,500
It bk Rosa Madre, French port, p t...cde 5,500
Aug 28
Br bk Annie J Marshall, Rotterdam, pt. 7,000
Nor bk Loreley, Baltic, pt..... 3,000
Aug 30
Br bk Lady Lisgar, Bristol or London, 3s 3d, or Liverpool, 3s 6d..... 7,000
Sept 1
Nor bk Ingolf, U K, 4s 4½d..... 2,000
Am bk F T Stinson, Bristol Channel, $12,000..... 6,000
Sept. 4.
Nor bk Java, Baltic, 4s 4½d..... 3,000
Br bk Granville Belle, Continent, p t ... 6,800
Br sh Prince Rudolph, Hamburg, 3s 9d.. 8,500
Sept. 5.
Br. bk Arabia, Rotterdam or Amsterdam, 4s 4½d..... 6,000
Ger shp Leopold Hall, Hamburg, 3s 9d... 8,500
Br bk Jennie Parker, Havre, 4s 6d...nap 6,000
Br bk Anglesea, Liverpool or Bristol, 3s 10d..... 6,500
Nor bk Brodrene, Flensborg, p t..... 4,000
Sept 6
It bk Maria Casabona, Cette, 5s..... cde 3,500
Ger shp Castine, Bremen, 4s.....nap 7,000
Sept 7
Br bk Emanuel Swedenborg, Bristol Channel, 4s..... 4,600
Aus bk Heribea, Cette or Marseilles, 4s 9d..... cde 3,500
Br shp Colchester, London, p t..... 7,400
Br bk Unanima, Dunkirk, 4s 6d.....cde 4,000
Nor bk Dronning Louise, U K or Cont, 4s 10½d.....nap 7,000
Nor bk Beta, U K or Cont, 4s 6d.....cde 5,000
Sept 8
Ger sh Geestemunde, Continent, p t..... 6,500
Sept 9
Nor bk Simeon, Java, 30@31c..... cs 26,000
Am bk Levanter, U K, 4s..... 4,000
Nor bk Frey, Baltic, p t..... 3,000
Am sh Lucy A Nickels, Japan, p t.....cs 46,000
Ger sh Ida, Continent, p t..... 8,600
It bk Enrichetto Accame, Penang or Singapore, 34@35c.....cs 35,000
Br bk Levuka, Antwerp, p t..... 9,000
Sept 18
Ger bk Albert A Berlin, Stettin, 5s 3d.... 3,000
Lr sh Z King, Continent, p t..... 8,400
Nor sh Magnhill, Continent, p t..... 9,000
Am bk Au Sable, French port, p t....cde 3,500
Sept 19
Br sh Annie E Wright, Bremen or London, p t..... 12,500
It bk Candido, Mediterranean, p t..... 2,400
Sept 20
Ger str Paula, Hamburg, o's acc....tank 20,000
Sept 21
It bk Guiseppe d'Abundo, Alicante, 5s 3d and 26c'.....cs cde 12,000 and cde 1,500
Br bk Ragnar, Liverpool, p t..... 6,000
Am sh Nancy Pendleton, Japan, 37c....cs 50,000
Br bk Violet, Havre, 4s 6d..... cde 5,000
Sept 22
Br bk Avonport, U K or Cont, p t..... 6,000
Sept 24
Br bk Avoca, Antwerp or London, p t... 9,600
Br bk Snow Queen, London, p t..... 6,700
Swed bk Hudiksvall, U K or Cont, p t... 8,900
Ger str Amalfi, Hamburg, 4s..... 10,000
Span str Aquadillano, Antwerp, p t..... 5,500
Ger bk Germania, Hamburg or Bremen, p t..... 5,200

PHILADELPHIA.

June 28
Swed sh Edward, Cont, pt..... 8,000
July 2
Grk bk Hawkeye, Cagliari, f o, 15c.....cs 18,000
Ger bk Victoria, U K or Cont, pt..... 4,700
It bk Arcangelo, Medit, pt.....cs 25,000
July 6
Nor bk Ghent, Baltic, pt..... 4,000
July 12
Br bk Werner, Java, 32½c.....cs 30,000
July 14
Dan sh Atalanta, Hamburg, 2s 6d..... 7,000
July 19
Nor bk Karsten, Langaard, Baltic, p t... 4,000
July 20
Ger bk Victoria, Cont or Baltic, p t..... 5,000
July 23
Br bk Harvester, Blaye, 3s 9d..... ...cde 4,200
July 26
Ger bk Libertas, Baltic, p t..... 2,500
Nor bk Embla, Baltic, p t..... 3,000
Nor bk Josephine, Baltic, p t..... 5,500
July 27
Br sh Sapphire, Continent, p t..... 7,500
It bk Concezione, Cagliari, f o, 16½c...cs 15,000
July 30
Ger bk Agnes, Hamburg. 5,000
Br bk Scots Bay, Continent .....
Aug. 4.
Ger bk Victoria; U Kor Cout(p t..... 4,700
Ger sh Favorita, Continent, p t..... 7,200
Ger str Ovel Goenne, Hamburg, o's acc. 20,000
Aug 14
Nor bk Albeon, Rouen, 5s..... ..nap 2,500
It bk Ottone, Marseilles, 4s 3d .....cde 3,500
Aug 16
Br str Ardangorm, Rouen, 4s 9d.....cde 7,000
Sept. 11
Am ship Geo Scholfield, Calcutta, 30c..cs 45,000
Br shp Emilie L Boyd, Saigon, 40c.....cs 45,000
Nor bk Nor, Baltic, pt..... 5,000
Br shp Athlon, U K or Cont, pt..... 8,500
Ger shp Shakespear, Continent, pt..... 7,200
Br bk Alice, H Claridge, U K, pt..... 7,000
Belg shp Hainant, Antwerp, o's ac..tank 14,000
Br bk Talisman, Havre, pt..... .....cde 5,000
Am shp Centennial, Calcutta, pt.....cde 45,000
Nor bg Groskva, Baltic, 5s 3d..... 1,600
Sept 12
Br bk Peacemaker, U K or Cont. pt..... 8,000
Sept 13
Br str St Oswald, Liverpool or London 4s ½d..... 13,000
Br bk Avonia, London, pt..... 10,500
Br shp Oneoto, London, pt..... 6,500
It bk Nuovo Motto, U K, pt..... 4,000
Nor bk Orvilla, Dieppe, pt.....cde 6,500
Sept 14
Br str Maharajah, Rouen, 5s..... ....cde 7,000
Dtch bk Carmdia, Continent, pt..... 3,600
Nor shp Fayal, Baltic, pt..... 6,500
Sept 15
Nor bk Josva, U K, pt..... 3,000
Br bk John Hickman, Antwerp, pt..... 8,000
Sept. 17
Br bk Lillie M Virgus, Havre, 4s 6d...cde 5,500
Br bk Caliope, Continent, pt..... 8,000
Nor bk Tordenskjold. Antwerp, pt..... 7,000
Br shp Fred C Scammell, London, pt..... 8,600
It bk John Hammett, Bankok, 42c.....cs 20,000
Por uitticca, Montevideo, 38c.....cs 20,000
Br b bec, U K or Cont, pt. 9,00
Aug 20
It bk Alfredo, Medit, p t.....cs 30,000
Aug 24
Br str Burnley, Rouen, 5s.....cde 7,000
Ger bk Libertas, Baltic, p t..... 2,500
Aug 25
Port bk Fortuna, Fiume, p t.....cs 20,000
Aug 27
Aus sh The Lord Warden, St Louis du Rhone or Marseilles, 4s.....cde 6,500
Aug 28
It bk Lazarro Bianchi, Medit, p t. .....cs 20,000
It bk Adele, Lisbon, 21c..... .....cs 16,000
It bk Armonia, Java, p t.....cs 30,000
Nor bk Ariadne, Baltic, p t..... 4,500
Aug 29
Nor bk Embla, Baltic, p t..... 3,000
Am sch Maggie S Hart, French port, p t .....cde 4,000
Aug 30
Br sh Wm Douglas, Dutch port, 4s 3d.... 8,300
Aug 31
Nor bk Krageroe, Bremen, 5s 3d.....nap 3,000
Sept 1
It bk San Luigi, Cagliari f o, 25c. .....cs 18,500
Ger str Oevelgonne, Hamburg, o's acc... 25,000
Sept 5
Ger str Gluckauf. Bremen. o's acc..tank 19,000
Aus bk Ukraine, Medit, p t.....cs 25,000
Sept 6
Ger sh Goschen, Bremen or Hamburg, p t..... 7,000
Sept 7
Am sch Maria W Norwood, Bristol Channel. 4s.... 2,800
Br shp Lydia, London or Antwerp, p t .. 8,000
Br bk Aspatagon, Dunkirk, 4s 3d.....cde 5,800
Sept 8
Br bk Scots Bay, Continent, 3s 6d..... 6,400
Sept. 13
Br bg Teneriffe, Plymouth or Exmouth, 4s 3d..... 3,000
Sept 14
It bk Tommassius, Cagliari f o, 25c.....cs 20,000
It bk Ferreri, Cagliari f o, 25c.....cs 20,000
Sept 15
Br bk Abyssinian, London, pt..... 8,000
Nor bk Fortuna, Ger Baltic, 5s 3d..... 2,500
Ger sh Baltimore, Bremen or Hamburg, 2s 6d..... 7,000
Ger sh Agra, Hamburg, 2s 7½d..... 6,000
July 21
Ger sh Stassfurt, Hamburg, pt..... 10,500
Br bk Chas E Lefurgey, Hamburg, 2s 9d. 6,000
Ger bk Louise & Auguste, Hamburg, pt. 7,000
Sept 1
Ger bk Ceylon, Baltic, 4s 9d..... 3,600
Sept 18
Fr str Ville de Calais, Calais, o's acc..cde 15,000
Sept 19
Am bk Salina, Sables d'Olonne, 4s 10½d .....cde 3,000
Sept 21
Br bk Alvin Kelly, Lisbon, 4s..... 2,500
It bk Fede, Genoa, p t.....cs 28,000
Sept 22
Ger bk Heinrich & Tonio, Cont, p t..... 7,000
Nor sh Ferdinand, U K or Cont, p t..... 8,500
Sept 24
Ger bk Nanny. Oporto, p s.....cs 4.000 & 3,000
Sept 24
BOSTON
July 12
Nor bk Nina, Norwegian port, 2s 8d..... 3,000
July 23
Nor bk Triton, Baltic, pt..... 2,400
Nor bk Grigua, Baltic, pt..... 1,800
Aug 7
Nor bk Elizabeth Ahrens, Baltic, 3s 9d... 2,500
Aug 20
Nor bk Noah, Baltic, 4s 3d..... 2,800
Sept 1
Ger bk Baethaser, Norwegian port, 4s 3d 1,800
Brbg W A Clements, Norwegian port, 3d..... 248,800
Sept 17
Nor bk Johanne, Copenhagen, 5s 3d. 3,000
Sept 17
Nor bk Porro, Scandinavia, 4s 6d 3,000
Ger bk Calmar, Danish port, 4s 6d..... 1,500

PERTH AMBOY.

Sept 24
Nor bk Olbers, U K or Cont, p t..... 5,000
Nor bk Alfarin, Scandinavian port, 5s 3d 2,500

Clearances of Petroleum.

Following are the clearances of petroleum from the ports of New York, Philadelphia, Baltimore, Boston and San Francisco on the dates named. Refined, unless otherwise specified:—

NEW YORK.

Sept 4
Br st Austria, London, 12,411 bbls
Sept 12
Br bk Avonmore, Rotterdam, 8,885 bbls
Sept 13
Br str Glenshiel, Hong Kong, 31,500 cs
Sept 14
Am bk J W Dresser, Rio Janeiro, 9,900 cs
Sept 17
St bk Ottone, Marseilles, 3,625 bbls
Sept 18
Am sh Glendon, Yokohava, 65,285 cs
Am bg Scud, Bridgetown, 300 cs
Am sh A D Cooper, Batavia, 48,000 cs
Am sch A Schlalfer, Cayenne, 310 cs
Am str Philadelphia, Curacao, 6 cs
Am str Philadelphia, La Guayra, 275 cs
Br bk Lioness, Dunkirk, 3,167 bbls cde
Br sch Ettie, St Stephen, 300 bbls
Br bk Lewis Smith, Antwerp, 6,983 bbls
Br str Trinidad, Hamilton, 1 cs, 126 bbls
Belg sh Hainant, Antwerp, 872,000 gls bulk
Span str Euskaro, Amsterdam, 12,300 bbls
Span str Mexico, Savanilla, 230 cs
Span str Mexico, Carthagena, 20 cs
Nor bk Roskva, Sweden, 1,468 bbls
Sept 19
Br str Atlas, Jacmel, 10 cs
Br str Atlas, Aux Cayes, 40 cs
Port sch Timber, Maderia, 1,000 cs
Sept 20
Am bk J F Rothman, Bristol, 3,488 bbls
Am sch Genesta, Nor Sydney, 23 bbls
Am sch Genesta, Sydney, 23 bbls
Am str Genesta, Halifax, 636 bbls, 200 cs
Am str Ozama, Grand Turk, 2 bbls
Am str Ozama, Hayti, 62 cs
Br sh E J Spicer, Antwerp, 8,555 bbls
Br sch N Bruce, St John, 907 bbls
Br str Flamborough, St Kitts, 40 cs
Br str Flamborough, Br W Indies, 15 cs
Sept 21
Am sch Manuel R Cuza, St John's, 200 cs
Br bk Golden Fleece, Bridgetown, 200 cs
Br sh Algoma, Havre, 8,164 bbls cde
Br str Columbia, Liverpool, 4,000 bbls
Am str Colon, Amapola, 17 cs
Am str Colon, Buenaventura, 10 cs
Am str Colon, Callao, 12 cs
Am str Colon, San Juan, 20 cs
Am str Colon, Panama, 300 cs
Swed bk Gefion, Pt Elizabeth, 3,585 cs
Sept 22
Am sh Fawn, Amsterdam, 6,800 bbls
Am sh Highlander, Rotterdam, 8,325 bbls
Am bk Beatrice Havener, Santos, 11,350 cs
Am bk Henry L Gregg, Buenos Ayres, 4,500 cs
Am sh Paramita, Melbourne, 9,300 cs
Br bg Alice, Pt a Pitre, 200 cs
Br str Muriel, St Lucia, 104 cs
Br str Muriel, West Indies, 300 cs
Ger sh Barbadossa, Bremen, 8,816 bbls
Ger bk Stralsund, Stettin, 3,797 bbls
It bk Antonietta O, Rangoon, 32,553 cs
Span str Navarro, Amsterdam, 17,125 bbls
Nor bk Ruth, Pt Elizabeth, 3,800 bbls, 750 cs
Sept 24
Am str Phila, La Guayra, 450 cs 1 bbl
Am str Phila, Maracaibo, 125 cs
Am str Phila, Curacoa, 155 cs 16 bbls
Am str Phila, Pto Cabello, 33 bbls 1,660 cs
Am str Letimbro, Palermo, 24 bbls 50c
Am str C of Wash, Tampico, 10c
Br str Palm Branch, London, 2,000 bbls
Br str Cyril, Maranham, 1,000 cs 20 bbls
Br str Cyril, Ceara, 956 cs
Br str Cyril, Para, 2,545 cs 9 bbls
It bg Papa Giacomo, Trieste, 2,441 bbls

BOSTON

Sept 20
Sch Jessie, Maitland, 15cs, 87 bbls
Sch Nellie Blanche, Windsor, 90 bbls
Sept 21
Sch Elizabeth Ann, Little Grace Bay, etc
Sept 22
Bg W N H Clement, Christiansand, 2,534 bbls
Sch A Anthony, Maitland, 45 bbls
Sch Orlando, Port au Prince, 200 cs
Sch Gertrude, Grand Cayman, 50 cs

BALTIMORE

Sept 18
Am bg Stephen Bishop, Port Spain, 10,000 gls

PHILADELPHIA

Sept 15
Br str Ardanrigh, St Loubes, 6,124 bbls, cde
Am bk Henry Warner, Gibraltor f.o, 12,345 cs
Br bk Conductor, London, 6,660 bbls
Sept 17
Br ship Cashmere, London, 8,056 bbls
Br ship Rolf, Nordanham, 443,116 gls cde, 1,050 bbls nap
Nor bk Pomona, Yarmouth, 2,417 bbls
Br bk Kings County, Dieppe, 5,380 bbls, cde
Am bk Doris Eckhoff, Bristol E, 3,095 bbls
Sept 18
Br str Chilian, Genoa, 66,500 cs
Sept 19
Nor bk Ole Bol, Dieppe, 4,502 bbls, cde
Sept 20
Ger sh Johann Friederich, Hamburg. 7,894 bbls
Sept 21
Ger bk Laura Maria, Stralsund, 2,996 bbls
It bk Conquistatore, Cagliari f.o, 22,254 cs

Imports of Empty Petroleum Barrels.

NEW YORK

7441, S Pitou, J Hickman, Antwerp
7285, G Heye, Tordenskjold, Antwerp
5472, G Heye, Quebec, Antwerp
5042, G Heye, R Magnlied, London
1135, R A C Smith, Manhattan, Havana
1/30, B G Templeton, Collaiape, Dublin
7/059, S Pitou, Z Ring, Amsterdam
3073, G Heye, Landskoora, London
8065, G Heye, Revolving Light, Rotterdam
6015, G Heye, A E Wright, Antwerp
5665, G Heye, Ragnar, Rotterdam
12110, G Heye, J W Eissenhoon, Antwerp
55, Puig, Panama, Havana
8675, G Heye, Caravan, Rotterdam
3305, G Heye, Avoca, London
7550, G Heye, Hadiksvall, Rotterdam

PHILADELPHIA.

5346, order, Avonia, London

BALTIMORE.

4832, Balto United Oil Co, Baltimore, Hbg

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IMPORTS, EXPORTS, DOMESTIC RECEIPTS, Etc.

IMPORTS ENTERED AT NEW YORK FOR CONSUMPTION.

DURING THE WEEK ENDING SEPT. 22, 1888.

ACID—9 cs, Merchants Dispatch, Wieland, Hamburg
1 cs, L Englehorn, Saale, Bremen
7 cs, R F Downing & Co, Hammonia, Hamburg
9 cks, Pickhardt & K, Rotterdam, Rotterdam
1 cs, W & H Erdtman, Monkseaton, Hamburg
ACETIC—8 bbls, 3,565lb, A Fauri, Monkseaton, H'burg
ARSENIC—30 dms, 36,613lb, J Campbell & Co, England, Liverpool
BORACIC—10 cks, 11,265lb, Rohe & Bro, Ethiopia, G'gow
1 cs, 50lb, W H Schieffelin & Co, L Monarch, London
CARB—20 dms, 2,240lb, J P Barnett, C of New York, L'pool
20 cs, Schering & G, Monkseaton, Hamburg
20 cs, Schering & G, Hammonia, Hamburg
20 cs, Schering & G, Rhaetia, Hamburg
CARBONIC—1 cs, Luyties Bros, Monkseaton, H'burg
CITRIC—30 kgs, 3,360lb, McKesson & R, L Monarch, L'don
20 kgs, 2,240lb, Stallman & F, L Monarch, London
FLUORIC—4 cks, 1,000lb, Lutz & Movius, Wieland, H'burg
PHOS—2 cs, Schering & G, Hammonia, Hamburg
1 cs, Schering & G, Rhaetia, Hamburg
PICRIC—5 cs, Detwiller & S, C of New York, L'pool
15 cks, Newmark & Gross, England, Liverpool
PYRO—3 cs, E & H T Anthony & Co, Rhaetia, Hamburg
6 cs, Schering & G, Monkseaton, Hamburg
2 cs, Schering & G, Hammonia, Hamburg
SAL—10 cs, Schering & G, Rhaetia, Hamburg
8 cs, Schering & G, Hammonia, Hamburg
10 cs, Schering & G, Monkseaton, Hamburg
ALUMINA SULPH—400 cks, 120,000lb, E H Watson, J Hickman Antwerp
ALBUMEN—21 cks, 10,408lb, A Klipstein, S of Georgia, G'gow
12 cks, 2,392lb, Rothe & Lips, Monkseaton, Hamburg
ALOES—9 cks, 4,570lb, G G Cowl, Muriel, Barbadoes
ALIZARINE—30 bbls, 11,889lb, A Klipstein, Arizona, L'pool
105 cks, 42,450lb, Lutz & Movius, Rhaetia, Hamburg
AMMONIA SAL—17 cks, 11,156lb, Mason C & Co, Hekla, Stettin
MURI—7 cks, 4,712lb, Rogers & Pyatt, Rhaetia, Hamburg
ANNATTO SEED—2 bgs, 377lb, Sanford & K, Athos, Kingston
2 bbls, 650lb, A S Lascelles & Co, Athos, Kingston
ANISEED—5 bls, 1,135lb, Eimer & Amend, Trinacria, Trieste
ANILINE COLORS—5 cks, F Bredt & Co, Noordland, Antwerp
40 pgs, E Schlbach & Co, Noordland, Antwerp
39 pgs, 4,690lb, A Klipstein, Noordland, Antwerp
1 keg, 52lb, Barbour Bros, S of Georgia, Glasgow
13 cks, 1,560lb, Geisenheimer & Co, Ems, Bremen
11 cks, 3,300lb, A Klipstein, Rugia, Hamburg
7 cks, Schoellkopf, Hartford & M, Noordland, Antwerp
70 pgs, Pickhardt & K, Rotterdam, Rotterdam
1 keg, W J Matheson & Co, Greece, London
2 cs, 40lb, P H Karcher, La Bourgogne, Havre
1 csk, Davis & Walton, Ems, Bremen
3 pgs, Anchor Color Co, La Bourgogne, Havre
2 cs, 224lb, T Weicker, Monkseaton, Hamburg
6 cks, 3,020lb, J Campbell & Co, Arizona, L'pool
5 kgs, 560lb, J C Bloomfield & Co, Arizona, L'pool
4 cks, 1,000lb, R Holliday's Sons, Arizona, L'pool
69 pgs, 9,385lb, Lutz & Movius, Rhaetia, Hamburg
1 cs, 4lb Eimer & Amend, Rhaetia, Hamburg
4 pgs, 698lb, A Keppelman, Waesland, Antwerp
26 pgs, 2,610lb, A Klipstein, Waesland, Antwerp
8 cks, 850lb, Lutz & Movius, Wieland, Hamburg
8 pgs, 1,000lb, Lutz & Movius, Trave, Bremen
SALT—12 cs, W J Matheson & Co, Greece, London
ANTIMONY SULPH—1 ck, 220lb, Eimer & Amend, Rhaetia, Hamburg
ARCHIL—8 cks, 5,040lb, J C Bloomfield & Co, Greece, London
5 cks, 3,170lb, W A Ross & Bro, Aurania, Liverpool
4 cks, 2,229lb, Albany Aniline Co, Arizona, L'pool
ARNICA FLOWERS—11 bls, 752lb, McKesson & R, Colorado, Hull
ROOT—1 bl, 218lb, McKesson & R, Monkseaton, H'burg
ARGOLS—13 cks, 17,259lb, N Y Tartar Co, Coronilla, Messina
25 cks, 25,357lb, N Y Tartar Co, Adriatic, L'pool
214 bgs, 47,080lb, C Pfizer & Co, Coronilla, Messina
80 pgs, 76,670lb, Loeb Bros, Trinacria, Trieste
6 cks, F Bredt & Co, La Bourgogne, Havre
28 cks, 28,371lb, N Y Tartar Co, Aurania, L'pool
20 cks, 21,025lb, C Pfizer & Co, Rhaetia, Hamburg
20 cks, 22,656lb, N Y Tartar Co, Trinacria, Naples
67 bgs, 15,648lb, C Pfizer & Co, Trinacria, Naples
ARSENIC—50 cks, 18,432lb, C Tatham, L Monarch, London
RED—200 kgs, 22,000lb, Schering & G, F E Scammell, H'b'g
50 kgs, 5,500lb, R Brueckner & Co, F E Scammell, H'b'g
7 kgs, 770lb, Eimer & Amend, Rhaetia, Hamburg
ARROWROOT—5 bbls, 1,105lb, McKesson & R, L Monarch, L'dn
ASAFŒTIDA—27 cs, 7,432lb, R Hillier's Son Co, Landskrona, London
ASPHALTUM—21 bgs, 6,144lb, C Oertel, Manhattan, Havana
BALSAM COP—9 bbls, Dodge & Olcott, Advance, Maranham
BARIUM PEROX—15 cks, 3,300lb, Rogers & P, Rhaetia, H'burg
BARYTES SULPH—69 cks, 66,311lb, G W Sheldon & Co, Ems, Bremen
BASIC SLAG—2,500 bgs, 550,000lb, G R Bach, Ragnar, R'dam
BAY LEAVES—1 bl, Dodge & Olcott, Flamborough, Roscau
BEESWAX—4 bbls, 645lb, Macy & Dunham, Athos, Kingston
BELLADONNA—2 bls, 200lb, McKesson & R, Colorado, Hull
BERLIN BLUE—25 bbls, 4,409 lb, A Keppelman, Waesland, Antwerp
BERRIES—5 bgs, 1,117lb, W H Schieffelin & Co, Trinacria, Trieste
BLEACH—100 cs, 8,200lb, F J Macnaughtan, L Monarch, L'don
193 cks, 229,222lb, Wing & Evans, Republic Liverpool
BISMUTH—7 cs, 2,250lb, C Pfizer & Co, Aurania, L'pool
6 pgs, 1,601lb, Dr E R Squibb, Aurania, L'pool
BORAX—122 bgs, H J Baker & Bro, Italy, L'pool
BRIMSTONE—1,056 tons, Parsons & Petit, Coronilla, Girgenti
300 tons, J L Morgan & Co, Coronilla, Girgenti
BRISTLES—9 cks. 1,725lb, H Kroehl, Hammonia, Hamburg
1 cs, 7lb, United Zylonite Co, Ems, Bremen
15 cs, 3,307lb, Lewissohn Bros, La Bourgogne, Havre
15 cks, 5,905lb, H Kroehl, Monkseaton, Hamburg
8 pgs, 2,899lb, F W Von Stade, Monkseaton, Hamburg
6 cks, 1,891lb, F W Von Stade, Rhaetia, Hamburg
BRONZE POWDER—14 cs, T Riessner, Saale, Bremen
8 cs, 4,000lb, J Sachs, Saale, Bremen
2 cs, F J Emerich & Son, Ems, Bremen
2 cs, 1,100lb, W & H Erdtman, Ems, Bremen
10 cs, G H Barbey, Monkseaton, Hamburg
10 cs, 3,200lb, J Marsching & Co, Monkseaton, H'burg
14 cs, 3,470lb, Fuchs & Lang, Monkseaton, H'burg
14 cs, G Meier & Co, Fulda, Bremen
6 cs, A B Ansbacher & Co, Fulda, Bremen
7 cs, G Meier & Co, Rhaetia, Hamburg
10 cs, S Ullman, Rhaetia, Hamburg
4 cs, F J Emerich & Son, Fulda, Bremen
BUCHU—36 bls, 12,752lb, Lazell, D & Co, Landskrona, London
CACAO BUTTER—10 cs, 2,240lb, G A Alden & Co, L Monarch, London
17 pgs, 3,317lb, R Brueckner & Co, Rhaetia, Hamburg
CANARY SEED—600 bgs, DeVailiere & N, Aurania, L'pool
2 bgs, A Merkle, Fulda, Bremen
CARAMEL—10 cks, 4,611lb, V Loewi, Rhaetia, Hamburg
10 cks, 4,739lb, V Loewi, Hekla, Stettin
3 cks, C B Richards & Co, Monkseaton, Hamburg
CARMINE—1 cs, 330lb, A Keppelman, Waesland, Antwerp
CARVOL—1 cs, 100lb, G Lueders, Trave, Bremen
CAMWOOD—13 tons, Yates & Porterfield, Monrovia, Monrovia
CARAWAY SEED—100 bls, 11,000lb, L German, Rotterdam, Rotterdam
CARDAMOMS—2 cs, 593lb, McKoeninsheim, Greece, London
CANTHARIDES—13 cs, 623lb, McKesson & R, L Monarch, L'don
CASSIA—30 bls, 2,248lb, Bidwell & F, E L Boyd, Singapore
BUDS—100 cs, 6,650lb, Waterbury & Force, Centenniel, Hong Kong
CEMENT—840 cks, E Thiele, Hammonia, Hamburg
500 cks, Sinclair & B, L Monarch, London
850 cks, Marcial & Co, Greece, London
600 cks in our last per L Monarch to J Brand should be J W Binney
1,000 cks, C J Stephens. L Monarch, London
800 bbls, Empire Warehouse Co, Hammonia, H'burg
600 cks, H Fleming, Greece, London
1,120 cks, E Thiele, F E Scammell, Hamburg
3,322 cks, J Brand, F E Scammell, Hamburg
2,200 cks, E Thiele, Z Ring, Amsterdam
2,030 cks, Empire Warehouse Co, Landskrona, London
500 cks, G T Noe, Landskrona, London
1,000 cks, E Thiele, Landskrona, London
1,500 cks, H Fleming, Landskrona, London
2,700 cks, Empire Warehouse Co, A E Wright, Antw'p
2,500 cks, J Brand, A E Wright, Antwerp
2,500 bbls, Knauth, Nachod & K, G Belle, Antwerp
CHAMOIS—6 cs, T L Lutkins, Adriatic, Liverpool
2 cs, J S Rockwell & Co, L Monarch, London
2 cs. Merchants Dispatch, Adriatic, Liverpool
1 cs, Wells, Fargo & Co, Aurania, Liverpool
3 cs, A Isaacs & Co, Aurania, Liverpool
1 cs, T Garnar & Co, C of New York, L'pool
CHAMOMILES—3 cks, 352lb, McKesson & R, Monkseaton, Hamburg
12 cs, 746lb, McKesson & R, Colorado, Hull
5 pgs, 444lb, C D Engelke, Monkseaton, Hamburg
2 cs, 440lb, Lehn & Fink, Rhaetia, Hamburg
CHALK—30 cks, F J Macnaughtan, Greece, London
1,200 tons, F G Brown, Ragnhild, London
CHEMICALS—60 cks, Gabriel & Schall, Noordland, Antwerp
3 cs, L Englehorn, Saale, Bremen
5 cs, Schering & G, Hammonia, Hamburg
46 cks, A Klipstein, Rembrandt, Hamburg
2 cs, C B Richards & Co, Rembrandt, Hamburg
11 cs, F A Reichardt & Co, Monkseaton, Hamburg
3 cs, McKesson & R. L Monarch, London
2 cs, W H Schieffelin & Co, L Monarch, London
1 cs, Schering & G, Monkseaton, Hamburg
6 pgs, McKesson & R, Monkseaton, Hamburg
8 cs, Schering & G, Rhaetia, Hamburg
9 cs, F A Reichardt & Co, Rhaetia, Hamburg
2 cs, Hensel, Bruec'man & L, Monkseaton, Hamburg
2 cs, R F Downing & Co, Xiola, Hamburg
6 cks, C Cooper & Oo, Rhaetia, Hamburg
4 cs, Lehn & Fink, Wieland, Hamburg
4 cs, Lehn & Fink, Rhaetia, Hamburg
COLCHICUM SEED—1 cs, 220lb, Lehn & F, Rhaetia, Hamburg
CINNAMON—100 bls, 10,000lb, L German, Greece, London
CINCHONA BARK—4 bls, 1,000lb, Howe, Balch & Tay, Greece, London

CLOVES—99 bgs, 12,780lb, E R Durkee & Co, Greece, London
20 cs, 3,701lb, Packard & J, Greece, London
CHINESE BLUE—1 cs, 112lb, G H Morrill & Co, Rhaetia, H'burg
COBALT—10 cks, 1,103lb, Stallman & F, Hammonia, Hamburg
OXIDE—5 cs, 1,000lb, J Marsching & Co, Ems, Bremen
COAL TAR PROD—10 bbls, 4,147lb, Schulze-Berge & K, La Bourgogne, Havre
COCHINEAL—20 bgs, 3,798lb, Beach & Co, L Monarch, London
20 bgs, 3,781lb, Beach & Co, Saale, Bremen
COLORS—2 cs, G A & E Meyer, L Monarch, London
35 pgs, Pickhardt & K, Rotterdam, Rotterdam
33 pgs, R F Downing & Co, Greece, London
3 pgs, A B Ansbacher & Co, C of New York, Liverpool
2 cs, Schall & Co, Monkseaton, Hamburg
2 cs, G A & E Meyer, La Bourgogne, Havre
20 cks, Pickhardt & K, Monkseaton, Hamburg
4 cks, B P Ducas & Co, Rotterdam, Rotterdam
5 pgs, G H Morrill & Co, Monseaton, Hamburg
1 cs, G H Morrill & Co, Rhaetia, Hamburg
29 cks, Pickhardt & K, Rhaetia, Hamburg
11 pgs, 3,978lb, A Keppelman, Rhaetia, Hamburg
2 cks, W & H Erdtman, Monkseaton, Hamburg
1 bx, A K Gardiner & Bro, Gallia, Liverpool
CORKWOOD—265 bdls, Truslow & Co, G De Abundo, Lisbon,
320 bls, J Robinson & Co, Salvatore, Seville
845 bdls, Gudewill & B, G De Abundo, Cadiz
234 bls, J Robinson & Co, Anchoria, Glasgow
100 bls, Gudewill & B, Balkan, Lisbon
975 bdls, J Robinson & Co, Balkan, Lisbon
CORKS—15 bgs, Gudewill & B, G De Abundo, Cadiz
SQUARES—25 bdls, J Robinson & Co, Balkan, Lisbon
CORIANDER SEED—200 bls, 44,092lb, R F Downing & Co, Trinacria, Fiume
COUMARIN—1 cs, 20lb, Fritzsche Bros, Saale, Bremen
CUBEBS—6 bgs, 401lb, J Clay, Greece, London
CUTTLEFISH—50 stps, 3,931lb, Tyler & Finch, Trinacria, Trieste
5 stps, 341lb, J Zeller, Trinacria, Trieste
10 stps, 837lb, W H Schieffelin & Co, Trinacria, Trieste
DIGITALIS—6 bls, 880lb, McKesson & R, Colorado, Hull
DEXTRINE—1 cs, 49lb, Schoellkopf, Hardford & M, Noordland, Antwerp
200 bgs, 43,328lb, L A Salomon & Bro, Hekla, Stettin
200 bgs, 43,328lb, J Davies' Sons, Hekla, Stettin
15 bgs, Nemark & G, Britannic, Liverpool
1 bbl, 55lb, Schoellkopf, Hartford & M, Amalfi, H'burg
DYEWOOD EXTRACT—30 cks, Sykes & Street, Colorado, Hull
10 cks, A De Ronde & Co, Adriatic, Liverpool
DROP BLACK—15 cks, 1,778lb, R J Waddell & Co, Colorado, Hull
DRUGS—11 pgs, Eimer & Amend, Hammonia, Hamburg
5 pgs, Eimer & Amend, Rhaetia, Hamburg
1 cs, 154lb, Stallman & F, Adriatic, Liverpool
6 pgs, Eimer & Amend, Monkseaton, Hamburg
7 pgs, Eimer & Amend, Trinacria, Trieste
4 pgs, W H Schieffelin & Co, Rhaetia, Hamburg
9 bls, Lehn & Fink, Rhaetia, Hamburg
ERGOT—13 bgs, 2,017lb, Schoellkopf, Hartford & M, Amalfi, Hamburg
DUTCH METAL—4 cs, Fuchs & Lang, Monkseaton, Hamburg
8 cs, Isaacs, Voight & Co, Fuida, Bremen
FISH SOUNDS—86 cs, G B Morewood & Co, L Monarch, London
FLOCKS—25 bls, 2,756lb, H Kohnstamm & Co, La Bourgogne, Havre
FULLERS EARTH—95 tons, Hammill & G, L Monarch, London
142 tons, Hammill & G, Greece, London
25 tons, N Y Dye Ext & C Co, Greece, London
FRANKFORT BLACK—4 cks, 1,705lb, C Wix & Co, Hammonia, Hamburg
FUSTIC EXT—30 cks, 14,225lb, Banning B & Co, La Bourgogne, Havre
GALLS—164 cs, 21,280lb, Geisenheimer & Co, Greece, London
10 bgs, Rogers & Pyatt, Greece, London
GAMBIER—2,498 bls, 672,618lb, Bidwill & F, E L Boyd, S'pore
284 bls, 71,481lb, Gerard & Brown, Greece, London
892 bls, 233,311lb, S F Gibbons, Greece, London
610 bls, 156,222lb, Bidwell & F, Greece, London
100 bls, R G Salomon, L Monarch, London
GELATINE—11 cs, 242lb, McKesson & R, Colorado, Hull
5 cks, W H Schieffelin & Co, Adriatic, Liverpool
20 cs, 1,989lb, H Martin, Rotterdam, Rotterdam
20 cs, 2,646lb, L W Morris & Son, Rotterdam, R'dam
1 cs, 50lb, Lehn & Fink, Rhaetia, Hamburg
GINGER—25 bbls, 3,078lb, W H Schieffelin & Co, Greece, London
24 bbls, 2,908lb, Rogers & Pyatt, Greece, London
25 bgs, Groat & Kissock, L Monarch, London
20 bbls, Gomez & Pearsall, E Johnson, Mayaguez
1 bbl, Hutcheson & B, Saratoga, Havana
2 bbls, 300lb, W M Hinton, Athos, Kingston
26 bbls, 2,652lb, G Wessels & Co, Athos, Kington
GLASS CATHEDRAL—10 cs, 5,232lb, J Fitzpatrick & Co, Anchoria, Glasgow
10 cs, 5,224lb, Vanhorne, G & Co, Anchoria, Glasgow
ENAMELED—20 cs, J F Heyne, Noordland, Antwerp
GROUND—125 cs, J F Heyne, Noordland, Antwerp
MIRROR—17 cs, 4,355 ft, P Weiderer & Bro, Rhaetia, Hamburg
2 cs, 35 ft, Camerden & F, La Bourgogne, Havre
15 cs, 4,615 ft, P Weiderer & Bro, Monkseaton, H'burg
23 cs, 12,072 ft, S Bache & Co, Noordland, Antwerp
9 cs, 4,559 ft, Monroe & F, Noordland, Antwerp
1 cs, Taylor & Bro, Alaska, L'pool
46 cs, 24,968 ft, Bendit, D & Co, Rotterdam, Rotterdam
23 cs, 11,214 ft, Vanhorne, G & Co, Rotterdam, R'dam
4 cs, Enrico & Co, Trinacria, Naples
4 cs, 1,152 ft, Heroy & M, Saale, Bremen
1 cs, 9 ft, D Hecht, Monkseaton, Hamburg
8 cs, 848 ft, H Maddock, Adriatic, L'pool
21 cs, 11,900 ft, S Bache & Co, Rotterdam, Rotterdam
27 cs, 14,488 ft, Windmuller & R, Rotterdam, Rotterdam
4 cs, 1,223 ft, Kaufman & S, Monkseaton, Hamburg
5 cs, 160 ft, J Rosenthal & Co, Monkseaton, Hamburg
PLATE—21 cs, 6,936 ft, J Kahn, Noordland, Antwerp
16 cs, 6,978 ft, S Bache & Co, Noordland, Antwerp
2 cs, 721 ft, Sonweine & Co, Noordland, Antwerp
28 cs, 6,075 ft, P Semmer & Co, Noordland, Antwerp
53 cs, 16,360 ft, H H Cahn, Noordland, Antwerp
8 cs, 6,061 ft, J A Waller, Adriatic, L'pool
27 cs, 3,071 ft, J Zahn, Adriatic, L'pool
1 cs, E A Boyd, Adriatic, L'pool
3 cs, 468 ft, R F Downing & Co, Hammonia, Hamburg
12 cs, 2,815 ft, J Kahn, Monkseaton, Hamburg
19 cs, 6,704lb, S Bache & Co, Anchoria, Glasgow
3 cs, 887 ft, P Semmer & Co, Alaska, L'pool
1 cs, 240 ft, J Fitzpatrick & Co, England, Liverpool
5 cs, 2,245 ft, A Von Praag & Co, Waesland, Antwerp
45 es, 16,265 ft, H H Cahn, Waesland, Antwerp
ROLLED—15 cs, 11,599lb, J Fitzpatrick & Co, England, Liverpool
WINDOW—1,869 cs, 113,640 lb, Holbrook Bros, Noordland, Antwerp
2,373 cs, 129,096 lb, S Bache & Co, Noordland, Antwerp
1,072 cs, 67,470 lb, T W Morris & Co, Noordland, Antw'p
1,058 cs, 66,520lb, Heroy & M, Noordland, Antwerp
50 cs, 2,500lb, S Kommel, Noordland, Antwerp
381 cs, 21,630lb, J F Heyne, Noordland, Antwerp
1,313 cs, 80,510lb, Vanhorne, G & Co, Noordland, Antw'p
20 cs, 1,920lb, P Semmer & Co, Alaska, L'pool
70 cs, 5,600lb, T W Morris & Co, Arizona, L'pool
142 cs, 32,632lb, Heroy & M, Arizona, L'pool
539 cs, 63,600lb, Vanhorne G & Co, Waesland, Antwerp
GLUCOSE—45 cks, 24,499lb, V Loewi, Hekla, Stettin
GRAPE SUGAR—300 cs, 33,000lb, V Loewi, Rhaetia, Hamburg
GLYCERINE CRUDE—34 dms, 36,766lb, Marx & Rawolle, Rotterdam, Rotterdam
101 cks, 49,906lb, Marx & Rawolle, La Bourgogne, Havre
REFINED—12 cs, 600lb, McKesson & R, L Monarch, L'don
GLAUBER SALT—20 cks, 4,824lb, A Klipstein, Noordland, Antwerp
GLUE—54 pgs, 19,303lb, A Hodge & Co, L Monarch, London
20 bgs, O De Comeau, L Monarch, London
10 cks, 6,432lb, S Isaacs & Co, C of New York, L'pool
12 cks, 13,896lb B W Jones, England, Liverpool
GOLD SIZE—3 cs, Pomeroy & F, Greece, London
GREASE—154 cks, A L Knight, L Monarch, London
GYPSUM—100 cks, 79,750lb, G A & E Meyer, Adriatic, L'pool
GUM—1 pg, 179lb, P Philippeson & Co, C of Washington, V Cruz
10 cs, 511lb, W H Schieffelin & Co, Greece, London
2 cs, W H Schieffelin & Co, Rhaetia, Hamburg
ANIMI—30 cs, 3,142lb, Walker Gum Co, Waesland, Antw'p
AMMONIAC—1 cs, 222lb, J Zeller, Trinacria, Trieste
ARABIC—10 cs, 3,425lb, J Clay, Trinacria, Trieste
CHICLE—5 bgs, 1,000lb, F Probst & Co, Saratoga, Tuxpan
79 bgs, 14,000lb, L Brandeis & Co, Saratoga, Tuxpan
62 bgs, 11,345lb, J W Wilson & Co, Saratoga, Tuxpan
36 bgs, 6,384lb, H A Forrest & Co, Saratoga, Tuxpan
31 bgs, 4,905lb, E & H T Anthony & Co, Saratoga, Tuxpan
COPAL—28 cs, 5,600lb, Arnold, C & Co, Noordland, Antw'p
123 cs, J R Townsend & Co, L Monarch, London
CHIPS—67 cs, Knudson, P & Co, L Monarch, London
DAMAR—200 cs, G B Morewood & Co, L Monarch, London
MASTIC—5 cs, 512lb, Stallman & F, Trinacria, Trieste
OLIB—10 cs, 2,717lb, Rogers & Pyatt, Greece, London
SENEGAL—30 bgs, 8,600 lb, Thurston & B, La Bourgogne, Havre
SUB—36 cks, 25,084 lb, Baldwin Bros & Co, State of Georgia, Glasgow
8 cks, 14,058lb, Baldwin Bros & Co, S of Nevada, Glasgow
TRAG—10 cs, 1,763lb, J Clay, Greece, London
HERBS—11 bls, 2,750lb, M Koenigsheim, Colorado, Hull
INDIAN RED—50 cks, G W Sheldon & Co, Colorado, Hull
INDIGO—5 cs, 1,134lb, R Holliday's Sons, Arizona, L'pool
CARMINE—2 cks, Davis & Walton, Ems, Bremen
INSECT FLOWERS—5 bls, 2,207 lb, Thurston & B, Trinacria, Trieste
1 bl, 451lb, Stallman & F, Trinacria, Trieste
128 bls, 57,338lb, Eisner & M Co, Trinacria, Trieste
IRON OXIDE—20 kgs, 2,800lb, J L Smith & Co, Colorado, Hull
75 kgs, 8,400lb, G A & E Meyer, Colorado, Hull
1 cs, F A Reichardt & Co, Rhaetia, Hamburg
SULPH—20 kgs, 4,410lb, O Hann, California, Hamburg
2 cs, Bogers & Pyatt, Phaetia, Hamburg
KAINIT—502 tons, C Weidinger, N B Palmer, Hamburg
403 tons, C Weidinger, A Newmann, Stettin
LANOLINE—10 cs, 1,000lb, Lutz & Movius, Rhaetia, Hamburg
LEAVES—4 cs, 450lb, W H Schieffelin & Co, Monkseaton, H'burg
LICORICE PASTE—10 cs, 527lb, L Windmuller & R, Trinacria, Genoa
ROOT—17 cs, R Hillier's Son Co, Colorado, Hull
3,990 bls, 1,214,411 lb, McAndrews & F, N Mattia, Scala Nova
4,016 bls, 400,925 lb, F M Arguimbau, Salvatore, Seville
4,050 bls, 1,331,652lb, McAndrews & F, Mariuccia, Smyrna
3,077 bls, Stamford Mfg Co, Heribea, Batoum
89 bls, 4,849lb, G Preston, Britannic, Liverpool
LIME JUICE—5 cks, 520 gls, J A Dennis, Christina, Falmouth
10 cks, 1,040 gls, Hoheb & J, Christina, Falmouth
LITHIA CARB—7 cs, 350lb, Lehn & Fink, Rhaetia, Hamburg
LOGWOOD—670,600 lb, T H Messinger & Co, M Abbott, St Marc
470,000lb, W & A Leaman, Fairfield, Gonaives
5 tons, Leaycraft & Co, Christina, Falmouth
ROOT—114 tons, C Oerbel, Manhattan, Havana
MADDER—5 cks, 6,169lb, C C Abel & Co, Rotterdam, R'dam
5 cks, 7,031lb, Stamford Mfg Co, Rotterdam, R'dam
MANGANESE OXIDE—1 cs, 110lb, McKesson & R, Monkseaton, Hamburg
MANURE SALT—1,000 bgs, 224,028lb, Heller, Hirsch & Co, Rembrandt, Hamburg
MATCHES—10 cs, M Markel, Colorado, Hull
MELILOT FLOWERS—2 bls, 460lb, Lehn & F, Rhaetia, H'burg
MILK SUGAR—3 bbls, 2,272lb, R Brueckner & Co, Trinacria, Trieste
20 cs, 4,410lb, Stallman & F, Colorado, Hull
2 cs, 660lb, M Koenigsheim, Colorado, Hull
MORPHINE—3 cs, 650 ozs, F J Macnaughtan, Anchoria, G'gow
MUSTARD SEED—25 bbls, 5,587lb, W H Schieffelin, Trinacria, Trieste
225 pgs, 57,565lb, G W Sheldon & Co, Trinacria, Trieste
50 bbls, 11,053lb, Tyler & Finch, Trinacria, Trieste
NUTMEGS—21 cs, 2,790lb, L German, Rotterdam, Rotterdam
48 cs 3,322lb, J W Rulon & Son, Greece, London
91 cs, 6,067lb, J W Phyfe & Co, Greece, London
49 cs, 3,380lb, J H Recknagel, Greece, London
100 cs, G B Morewood & Co, L Monarch, London
OCHER—32 cks, 5,600lb, Pomeroy & F, Greece, London
5 bbls, 1,103lb, W Zinsser & Co, Ems, Bremen
1 cs, 88lb, C P Stabb & Co, La Bourgogne, Havre
145 cks, 95,046lb, B P Ducas & Co, Anchoria, Glasgow
OIL ANISE—1 cs, 5lb, A Giese, Fulda, Bremen
ALMOND—1 cs, 11lb, J Zeller, Trinacria, Trieste
10 cs, 1,210lb, Eimer & Amend, Trinacria, Trieste
AMBER—2 cs, 200lb, G Lueders, Trave, Bremen
BERGAMOT—4 cs, 102lb, A Minaldi & Co, Coronilla Messina
1 cs, 22lb, C H Rohlff, Coronilla, Messina
1 cs, 5lb, A Giese, Fulda, Bremen
CARAWAY—5 cs, 500lb, G Lueders, Trave, Bremen
CODLIVER—15 bbls, 450 gls, J Zeller, Colorado, Hull
25 bbls, 750 gls, Hall & Ruckle, Colorado, Hull
25 bbls, 750 gls, Lehn & Fink, Colorado, Hull
50 bbls & 50 cs, 1,550 gls, W H Schieffelin & Co, Hekla, Bergen
CORIANDER—1 cs, 25lb, G Lueders, Trave, Bremen
ESSENTIAL—1 cs, R H Macy & Co, La Bourgogne, Havre
1 cs, G Lueders, Trave, Bremen
10 cs, Schering & G, Monkseaton, Hamburg
LAVENDER—3 cs, 300lb, Merchants Dispatch, La Bourgogne, Havre
23 cs, 1,986lb, Lanman & Kemp, Anchoria, Glasgow
LAUREL—1 cs, 121lb, Eimer & Amend, Trinacria, Trieste
LEMON—10 cs, 105lb, F J Macnaughtan, L Monarch, L'don
10 cs, 249lb, Liebman & Butler, Coronilla, Messina
13 cs, G W Sheldon & Co, Coronilla, Messina
30 cs, 759lb, A Minaldi & Co, Coronilla, Messina
1 cs, 119lb, Eimer & Amend, Trinacria, Trieste
1 cs, 22lb, C H Rohlff, Coronilla, Messina
1 cs, 10lb, A Giese, Fulda, Bremen
LINALOE—1 cs, 50lb, Fritzsche Bros, Saale, Bremen
PALM—181 cks, 33,940 gls, Yates & Porterfield, Monrovia, Monrovia
POPPY—2 cks, 103 gls, C P Staab & Co, La Bourgogne, Havre
OLIVE—50 bbls, 2,400 gls, Zuricalday & A, Coronilla, Messina
50 bbls, 2,400 gls, Zuricalday & A, Trinacria, Naples
60 bbls, 3,108 gls, S F Gibbons, Trinacria, Naples
60 bbls, W C Benedict, Trinacria, Naples
50 bbls, 2,544 gls, W R Peters & Co, Trinacria, Naples
150 bbls, 7,336 gls, W R Peters & Co, Coronilla, Messina
THYME—2 cs, 200lb, Fritzsche Bros, Saale, Bremen
ORANGE—1 cs, 22lb, C H Rohlff, Coronilla, Messina
SANDAL—1 cs, 70lb, G Lueders, Trave, Bremen
YLANG YLANG—1 cs, 100 ozs, G Lueders, Trave, Bremen
ORANGE LEAD—55 cks, 39,445lb, E Hill's Son & Co, Rotterdam, Rotterdam
25 cks, 19,980lb, Pfeiffer & L, Rotterdam, Rotterdam

MANUFACTURERS W. H. Ross & Co. BELFAST, IRELAND
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Nitrate Iron, Iron Liquor, Prussiate Potash, Red, Yel., Oxalic Acid, Glauber Salt, Fullers Earth.

23 cks, 16,674lb, J M Huber, Rotterdam, Rotterdam
PEEL—10 bls, 5,060lb, Stallman & F, Trinacria, Trieste
PAINT—4 cks, Toch Bros, Westernland, Antwerp
10 cks, Toch Bros, Colorado, Hull
7 pgs, J M Huber, Rotterdam, Rotterdam
PATENT DRYER—5 cks, 2,480lb, J L Smith & Co,Colorado,Hull
PALM KERNELS—1,215 bgs, 2,466 bush, Yates & Porterfield, Monrovia, Monrovia
PEPPER—880 bgs, 112,437lb,D P Cruikshank, E L Boyd, Singap'e
2,364 bgs, 333,219lb, Bidwell & French, E L Boyd, S'pore
392 bgs, 55,985lb, Packard & James, E L Boyd,Singapore
796 bgs, 112,123lb, J H Recknagel, E L Boyd, Singapore
393 bgs, 56,075lb, G W Sheldon & Co, E L Boyd, Singap'e
555 bgs, 72,956lb, J W Phyfe & Co, L Monarch, London
428 bgs, 52,235lb, J H Recknagel, Greece, London
PIMENTO—52 bgs, 6,677lb, A S Lascelles & Co, Athos, Kingston
11 bgs, 1,755lb, Macy & Dunham, Athos, Kingston
PEPPERMINT—4 cs, 685lb, Lehn & Fink, Rhaetia, Hamburg
PERPUME—1 cs, E Faber, Ems, Bremen
1 cs, Davis, T & Co, La Gascogne, Havre
6 cs, 77 gls, F R Arnold & Co, Greece, London
3 cs, 11 gls, Park & Tilford, La Bourgogne, Havre
1 cs, 11 gls, R H Macy & Co, La Bourgogne, Havre
PERU BARK—58 bls, 5,800lb, Punderford & Co, Andes,Savanilla
PHOSPHORUS—75 cs, 8,250lb, C Pfizer & Co, Colorado, Hull
PLUMBAGO—3 cs, 1,793lb, Eagle Pencil Co, Saale, Bremen
POTASH CHLO—100 kgs, 11,200lb, F J Macnaughtan, L Monarch, London
100 kgs, 11,200lb, Pickhardt & K, Rotterdam,Rotterdam
CAUSTIC—1 cs, 110lb, C Cooper & Co, Rhaetia, Hamburg
MURI—1,000 bgs, Battelle & R, Colorado, Hull
650 bgs, H H Salmon, Colorado, Hull
501 bgs, 112,224 lb, H H Salmon & Co, Germania,H'burg
POPPY FLOUR—25 bgs, F E McAllister,Monkseaton,Hamburg
QUININE—13 cs, 5,000 ozs, L Englehorn, Saale, Bremen
82 cs, 47,000 ozs, J L & D S Riker, Ems, Bremen
20 cs, 10,000 ozs, Stallman & F. Saale, Bremen
SALTS—3 cs, J L & D S Riker, Saale, Bremen
QUICKSILVER—10 flks, A B Ansbacher, Hammonia,Hamuurg
RENNET—2 cs, S Oppenheimer & Co, Monkseaton, Hamburg
2 pgs, L J Robertson & Co, Rhaetia, Hamburg
RHUBARB—6 cs, 1,132lb, J Clay, Greece, London
ROOTS—10 bgs, W H Schieffelin & Co, Greece, London
14 pgs, Eimer & Amend, Monkseaton, Hamburg
67 bls, 13,274lb, Stallman & F, Trinacria, Trieste
RAPESEED—4 bgs, A Merkle, Fulda, Bremen
299 bgs, 65,918lb, R F Downing & Co, Trinacria, Fiume
100 bgs, 22,046lb, Rosenstein Bros, Trinacria, Fiume
3 bgs, 330lb, W Bartels, Fulda, Bremen
SABADIE SEED—10 bgs, 990 lb, Schoellkopf, Hartford & M. Amalfi, Hamburg
SAFFRON—1 cs, 55lb, R Brueckner & Co, Rhaetia, Hamburg
1 cs, 66lb, Lehn & Fink, La Gascogne, Havre
SAGO—25 bgs, Ready Food Co, Noordland, Antwerp
100 bgs, Rosenstein Bros, Hammonia, Hamburg
82 bgs, Ready Food Co, Waesland, Antwerp
SALICINE—1 cs, 100lb, McKesson & R, L Monarch, London
SAFFLOWER EXTRACT—10 cs, 500lb, Pickhardt & K, Greece, London
SAFFROL—12 dms, 8,640lb, Fritzsche Bros, Saale, Bremen
SEEDLAC—10 bgs, 1,600lb, W H Schieffelin & Co, Greece,London
SARSAPARILLA—12 bls, 3,015lb, J W Wilson & Co, Saratoga, Vera Cruz
SEMARADA—2 bls, 647lb, McKesson & R, Colorado, Hull
SENNA—38 bls, 15,424lb, S F Gibbons, Adriatic, L'pool
32 bls, 9,184lb, F J Macnaughtan, L Monarch, London
101 bls, 30,028lb, J Clay, Greece, London
10 bls, 2,679lb, Tyler & Finch, Trinacria, Trieste
100 bls, 31,157lb, Fischer & Ewald, England, L'pool
50 bls, 15,741lb, R Hillier's Son & Co, England, L'pool
SEED—20 bls, 4,543lb, J Zeller, Trinacria, Trieste
SHELLAC—100 cs, 17,149 lb, L C King & Co, L Monarch, London
200 cs, N Y Shellac Co, Greece, London
18 cs, 3,006lb, J Clay, Greece, London
500 cs, 87,345lb, Rogers & Pyatt, Greece, London
50 cs, 7,071lb, N Y Shellac Co, L Monarch, London
5 cs, 510lb, A O Schoonmaker, C of New York, L'pool
SIENNA—1 ck, 441lb, A Keppelman, Rhaetia, Hamburg
SOAP CASTILE—50 cs, L Windmuller & R, Trinacria, Genoa
10 cs, 579lb, A Azema & Co, C of New York, L'pool
SODIUM—2 cs, Eimer & Amend, Landskrona, London
SULPH—26 cks, 11,055lb, C L F Rose, Fulda, Bremen
SODA ASH—185 cks, 276,300lb, J L & D S Riker, Italy, L'pool
361 cks, 416,139lb, P H Karcher, Quebec, Antwerp
42 cks, 111,892lb, J Lee & Co, S of Nevada, Glasgow
384 cks, 679,767lb, Wing & Evans, England, L'pool
129 cks, 228,517lb, Wing & Evans, Republic, Liverpool
225 cks, 453,406lb, Wing & Evans, Britannic,Livergool
253 cks, 445,018lb, Wing & Evans, Egypt, Liverpool
BICARB—250 kgs, 28,000lb, J L & D S Riker, Adriatic,L'p'l
CAUSTIC—250 dms, 165,812lb, J Lee & Co, Italy, L'pool
100 dms, 65,000lb, J L & D S Riker, Adriatic, L'pool
80 dms, 56,134lb, Wing & Evans, Wisconsin, Liverpool
HYPO—8 cs, 800lb, F J Macnaughtan, L Monarch, L'don
SAL—250 cks, 224,000lb, Wing & Evans, Republic, L'pool
SPONGE—40 cs, Lasker & Bernstein, England, L'pool
STEARINE—31 bbls, D C Link, Colorado, Dunkirk
38 cks, 22,694lb, J Macy's Sons, Crystal, Leith
STICLAC—10 cs, 1,200lb, Rogers & Pyatt, Greece, London
STORAX—1 cs, 132lb, Eimer & Amend, Trinacria, Trieste
SUMAC—280 bgs, 44,800lb, Core & Harbaugh, Letimbro,Palermo
LEAVES—60 bls,12,553lb,C E Gerli & Bro,Coronilla,Messina
EXTRACT—3 bbls, O Hann, Trinacria, Trieste
TAPIOCA—797 bgs, 112,013lb, J H Recknagel, E L Boyd, S'pore
TAMARINDS—1 bbl, 732lb, Eimer & Amend, Trinacria, Trieste
THYMOL—1 cs, 75lb, G Luebers, Trave, Bremen
TURPENTINE—4 cs, 341lb, Eimer & Amend, Trinacria, Trieste
TUSCAN RED—5 cks, 2,711lb, E Hill's Son & Co, Colorado, Hull
25 cks, G W Sheldon & Co, Colorado, Hull
ULTRAMARINE—10 cs, 2,238lb, H Kohnstamm & Co, Rotterdam, Rotterdam
UMBER—20 cks, 7,771lb, B P Ducas & Co, Colorado, Hull
1 cs, 44lb, G A & E Meyer, La Bourgogne, Havre
VANILLA BEANS—13 cs, 972lb, L Bernard & Co, La Bourgogne, Havre
5 cs, 884lb, Thebaud Bros, Panama, Vera Cruz
12 cs, 4,477lb, J W Wilson & Co, Panama, Havana
53 cs, 6,951lb,P Harmony's Neph & Co, Saratoga,V Cr'z
VARNISH—10 cs, 240 gls, Pomeroy & F, Greece, London
2 cs, A B Ansbacher & Co, C of New York, L'pool
4 cs, G A & E Meyer, La Bourgogne, Havre
[illegible] bbls, 200 gls, W & H Erdtman, Markseaton, H'burg
VERMI[illegible]—10 bbls, A B Ansbacher & Co,Hammonia,H'burg
VENETIAN RED—100 bbls, J L Smith & Co, Italy, L'pool
100 bbls, 33,600lb, J L Smith & Co, Colorado, Hull
100 bbls, 33,600lb, G A & E Meyer, Colorado, Hull
100 bbls, 33,600lb, R J Waddell & Co, Colorado, Hull
50 bbls, Toch Bros, Colorado, Hull
250 bbls, G W Sheldon & Co, Colorado, Hull
100 bbls, J L Smith & Co, England, L'pool
VENICE TURPENTINE—10 cs, 867lb, Mason, C & Co, Trinacria, Trieste
10 cs, 902lb, Tyler & Finch, Trinacria, Trieste
VERDIGRIS—5 cks, Rogers & Pyatt, C of New York, L'pool
WASH BLUE—6 cks, 1,795lb, L W Morris & Son, Fulda, Bremen
WAX MINERAL—11 cks, 11,405lb, Okonite Co, Greece, London
FOSSIL—1 cs, 88lb,L W Morris & Son, Monkseaton,H'burg
WHITE LEAD—100 kgs, 11,200lb, J L Smith & Co, L Monarch, London
90 pgs, 17,920lb, C T Raynolds & Co, L Monarch,London
MINERAL—28 cks, 18,068lb, G W Sheldon & Co, Aurania, Liverpool
WOOD EXTRACT—3 cks, 1,489lb, B P Ducas & Co,Monkseaton, Hamburg
YELLOW BERRIES—10 bgs, 1,932lb, T K Cummins & Co, England, L'pool
ZINC OXIDE—10 cks, 2,205lb, J M Huber, Rotterdam, R'dam
6 cs, 824lb, Lehn & Fink,Greece, London

WAREHOUSED.

ALUMINA SULPH—172 cks, 111,700lb, P H Karcher, Quebec, Antwerp
ANILINE COLORS—4 cs, 800lb, P H Karcher, La Bourgogne, Havre
10 pgs, 650lb, P H Karcher, Fulda, Bremen
19 pgs. C Georgi, Rotterdam, Rotterdam
43 pgs, Pickhardt & K, Rotterdam, Rotterdam
6 bbls, 2,501lb, A Klipstein, Noordland, Antwerp
17 pgs, E Sehlbach & Co, Noordland, Antwerp
ALCOHOL—160 bbls, 7,432 gls, G W Kidd & Co, California,H'b'g
BRISTLES—8 cks, 4,115lb, H Kroehl, Rhaetia, Hamburg
BRONZE POWDER—4 cs, 1,950lb, G H Barbey, Monkseaton, Hamburg
12 cs, 6,000lb, J Sachs, Saale, Bremen
COLORS—15 cks, 5,007lb, C Morningstar & Co, Saale, Bremen
DYEWOOD EXT—20 cks, Sykes & Street. Colorado, Hull
GLASS MIRROR—11 cs, 5,958 ft, A Arnstein & Co, Rotterdam. Rotterdam
GLAUBER SALT—4 cks, C Georgi, Rotterdam, Rotterdam
GLUE—27 cs, 20,246lb, S Isaacs & Co, Rotterdam,Rotterdam
OIL CASTOR—500 cs, 10,150 gls, Lanman & Kemp, San Joaquin, Calcutta
ESS—9 cs, Dodge & Olcott, Aurania, L'pool
COD LIVER—25 cks, 1,058 gls, Stallman & F,Colorado,Hull
60 cks, F Paulsen & Co, Colorado, Hull
MARVALLOSA—20 cs, Lanman & Kemp, Rhaetia, H'burg
OPIUM—4 cs, 637lb, J L & D S Riker, C of New York, L'pool
20 cs, 3,061lb, E J Lowry, Letimbro, Palermo
13 cs, 2,026lb, E W Adams & Co, Letimbro, Palermo
25 cs, 3,735lb, Laforme & F, Greece, London
10 cs, 1,494lb, Laforne & F, Britannia, L'pool
SOAP CASTILE—500 bxs, 19,811lb, J D Nordlinger, Trinacria, Leghorn

IMPORTS AT CHICAGO.

Week ending Sept. 22, 1888.

BONES—1 cs, L H Faesheim
CEMENT—400 bgs, Gabain & Co
COLORS DRY—1 cs, Thayer & Chandler
GLASS LOOKING—12 cs, First National Bank
GAUE—5 cks, Reid, Murdoch & Fisher
PAINTS—9 cs, A H Abbott & Co
PHOSPHATES—3 cars, 700 bgs, N W Fertilizing Co
QUININE—8 cs, Fuller & Fuller
SOAP—1 cs, G Barron

IMPORTS AT MONTREAL.

Week ending Sept. 22, 1888.

ALUMINA SULPH—30 cks, Bellhouse, Dillon & Co, Fremona, Newcastle
24 cks, Canada Paper Co, Fremona, Newcastle
BLEACH—22 cks, W & F P Currie, Lake Huron, Liverpool
86 cks, Canada Paper Co, Lake Huron, Liverpool
CEMENT—200 cks, order, Baumwall, Hamburg
500 cks, G Broard, Baumwall, Hamburg
1,170 cks, B & S H Thompson. Fremona, Newcastle
100 cks, Winn & Holland, Fremona, Newcastle
4,280 cks, order, Fremona, Newcastle
CHEMICALS—4 cs, Lyman Sons, Baumwall, Hamburg
COLORS—10 cks, Canada Paper Co, Europa, Hamburg
5 cks, Fergusson, Alexander & Co, Europa, Hamburg
61 pgs, order, Baumwall, Hamburg
EARTH COLOR—5 cks, M Davis, Europa, Hamburg
15 cks, order, Europa, Hamburg
GLUE—11 pgs, order, Baumwall, Hamburg
GLYCERINE—75 cs, order, Europa, Hamburg
LEAD SUGAR—1 ck, order, Vancouver, Liverpool
10 cks, order, Europa, Hamburg
OIL OLIVE—34 cks, D Masson & Co, Colina, Glasgow
LINSEED—416 bbls, order, Quebec, Bristol
PHOSPHORUS—10 cs, order, Quebec, Bristol
SALTPETER—155 bgs, order, Europa, Hamburg
SODA ASH—15 cks, J Barsalon & Co, Lake Huron, Liverpool
11 cks, Rolland Paper Co. Lake Huron, Liverpool
14 cks, W & E P Currie, Lake Huron, Liverpool
25 cks, Taylor Bros, Lake Huron, Liverpool
19 cks, Scostowe Chem & Pulp Co, Lake Huron, L'pool
14 cks, Wm Augus & Co, Lake Huron, Liverpool
BICARB—150 kgs, Smith & Keighly, Lake Huron, L'pool
CAUSTIC—100 dms, Jenkins & Co, Vancouver, Liverpool
SULPHUR—10 cks, order, Baumwall, Hamburg
13 cks, order, Europa, Hamburg
ULTRAMARINE—6 cks, order, Europa, Hamburg
4 cks, order, Baumwall, Hamburg
WHITE LEAD—47 cks, order, Fremona, Newcastle

IMPORTS AT PHILADELPHIA.

Week ending Sept. 21, 1888.

BARK CINCHONA—500 bls, Powers & Weightman, Maine, London
BLEACH—164 cks, E Hill's Son & Co, Edwin, Newcastle
37 cks, J J Keefe, Edwin, Newcastle
CEMENT—3,000 cks, E Thiele, Avonia, London
2,000 cks, order, Avonia, London
1,994 cks, J Brand, Avonia, London
500 cks, Marcial & Co, Avonia, London
2,000 cks, French, Richards & Co, Avonia, London
CLOVES—50 bls, A Malcom, Maine, London
CHALK—10 cks, order, Maine, London
CHINA CLAY—314 cks, Camelia, L'pool
GINGER—10 bls, F Brown, Maine, London
GAMBIER—850 bbls, C Smith & Co, Maine, London
619 bls, McNeally & Co, Maine, London
DYESTUFFS—10 cks, A Klipstein, Maine, London
10 cks, Beach & Co, Maine, London
GLASS WINDOW—500 cs, Drey & Kahn, Lord Gough, L'pool
INDIGO—12 cs, A L Green, Maine, London
KRYOLITE—800 tons, Pa Salt Mfg Co, Salina, Ivigtut
560 tons, Pa Salt Mfg Co, Ivigtut, Ivigtut
655 tons, Pa Salt Mfg Co, Fluorine, Ivigtut
NUTMEGS—30 cs, A Malcolm, Maine, London
OIL LEMON—40 cans, C E Hires, St Andrews Bay, Messina
OCHER—75 cks, French, Richards & Co, Maine, London
PEPPER—253 pgs, O G Hempstead & Son, Maine, London
167 bgs, A Malcom, Maine, London
POTASH CHLO—200 kgs, Fergusson Bros, Camelia, L'pool
SEED—45 bls, Smith, Kline & Co, Maine, London
46 bls, O G Hempstead & Son, Maine, London
SODA ASH—153 cks, J Lee & Co, Edwin, Newcastle
866 cks, Fergusson Bros, Edwin, Newcastle
644 cks, 1,087,124lb,Wing & Evans, Camelia, L'pool
648 cks, order, Camelia, Liverpool
257 cks, 461,529lb,Wing & Evans, Ohio, L'pool
CAUSTIC—30 dms, 19,320lb,Wing & Evans, Ohio, L'pool
259 dms, Fergusson Bros, Edwin, Newcastle
50 dms, E Hill's Son & Co, Edwin, Newcastle
180 dms, C Lennig & Co, Camelia, L'pool
25 dms, order, Camelia, Liverpool
SAL—833 cks, Fergusson Bros, Edwin, Newcastle
1,085 cks, 896 kgs, J I Keefe, Edwin, Newcastle
420 bbls, 701 kgs, J I Keefe, Camelia, L'pool
525 cks, 235,200lb,Wing & Evans, Camelia, L'pool
SALTS—30 cks, order, Edwin, Newcastle
SULPH—45 cks, J Lee & Co, Manitoban, Glasgow
TAR—100 bbls, E H Fitler & Co, Maine, London
VENETIAN RED—250 bbls, Edwin, Newcastle

IMPORTS AT BOSTON.

Week ending Sept. 22, 1888.

ACID CITRIC—20 kgs, Pavonia, L'pool
ALUM—30 cks, Hermann, Antwerp
50 cks, Galileo, Hull
ANILINE COLORS—11 kgs, T Leyland & Co, Catalonia, L'pool
7 pgs, J A & W Bird & Co, Hermann, Antwerp
8 pgs, T Leyland O Co, Bulgarian, L'pool
ARCHIL—20 cks, Davis & Walton, C of Lincoln, Hamburg
ALUMINA SULPH—20 cks, Linder & Meyer, Bulgarian, L'pool
AMMONIA MURI—10 cks, Linder & Meyer, Bulgarian, L'pool
BLEACH—106 cks, Catalonia, L'pool
110 cks, Pavonia, L'pool
92 cks, J L & D S Riker, Pavonia, L'pool
169 cks, Kansas, L'pool
873 cks, Bulgarian, L'pool
151 cks, E & F King & Co, Bulgarian, L'pool
CANARY SEED—200 bgs, Pavonia, Liverpool
CHEMICALS—20 cs, E & F King & Co, Hermann, Antwerp
COLORS—39 cks, G W Sheldon & Co, Galileo, Hull
DEXTRINE—100 bgs, City of Lincoln, Hamburg
FUSTIC EXTRACT—24 cks, Pavonia, Liverpool
25 cks, Howe, Balch & Tay, Catalonia, Liverpool
GLUE—120 bgs, A K Gardiner & Bro, Galileo, Hull
GREASE—250 bbls, order, Galileo, Hull
100 cks, Seccomb, Kehew & Son, Bulgarian, L'pool
GLASS PLATE—20 cs, order, Hermann, Antwerp
3 cs, R Sherburne & Co, Hermann, Antwerp
18 cs, Hills, Turner & Co, Bulgarian, Liverpool
WINDOW—561 pgs, H F Farnham & Co, Hermann, Ant'p
30,237 pgs, order, Hermann, Antwerp
50 cs, Hills, Turner & Co, Bulgarian, Liverpool
GLYCERINE—10 cs, Hermann, Antwerp
GUM COPAL—78 bgs, N B Mansfield, White Cloud, Appan, W C A
SUB—20 cks, T Leyland & Co, Bulgarian, L'pool
HAKE SOUNDS—24 bbls, Burt & Henshaw, Carroll, Charlottetown
1 bx, F L Clements & Co, Yarmouth, Yarmouth
MADDER—6 cks, Hermann, Antwerp
MATCHES—30 cs, Galileo, Hull
1 cs, Lewando & Co, Galileo, Hull
OIL BLACKFISH—13 cks, L K Hale, Sarah, Azores
SPERM—25 cks, J E May, Sarah, Azores
COD—15 cks, E & J S Bert, Carrol, Halifax
CODLIVER—25 cks, F Paulsen & Co, Galileo, Hull
PALM—682 pgs, N B Mansfield, White Cloud, W C A
PALM KERNELS—280 bgs, N B Mansfield, White Clouk, W C A
POTASH CARB—14 cks, C of Lincoln, Hamburg
SIZE—20 cks, J M O'Rourke, Catalonia, L'pool
SODA ASH—148 cks, Pavonia, Liverpool
45 cks, Kansas, Liverpool
49 cks, E F King & Co, Bulgarian, Liverpool
134 cks, Morey & Co, Bulgarian, Liverpool
CAUSTIC—200 dms, E & F King & Co, Kansas, Liverpool
100 dms, E & F King & Co, Bulgarian Liverpool
SAL—140 bbls, Kansas, Liverpool
BICARB—100 kgs, Linder & Meyer, Bulgarian, Liverpool
CHLO—10 kgs, order, Bulgarian, Liverpool
ULTRAMARINE—10 cs, J Strong & Co, Catalonia, Liverpool
5 cs, T Leyland & Co, Bulgarian, Liverpool
WOAD—2 cks, Boston Dye & C Co, Galileo, Hull

IMPORTS AT BALTIMORE.

Week ending Sept. 21, 1888.

IRON OXIDE—5 bbls, 1,680lb, J W Binney, Ohio, Newcastle
INDIAN RED—5 bbls, 1,680lb, J W Binney, Ohio, Newcastle
KAINIT—669 tons, J Bouday, Jr, & Co, Baltimore, Hamburg
SALT CAKE—294 cks, Oranmore, Liverpool
SODA ASH—206 cks, Oranmore, Liverpool
249 cks, 445,916lb,Wing & Evans, Peruvian, L'pool
VENETIAN RED—200 bbls, 67,200lb, J W Binney, Ohio, N'castle

IMPORTS AT NEW ORLEANS.

Week ending Sept. 21, 1888.

SODA CAUSTIC—100 dms, Jamaican, Liverpool
300 dms, Yucatan, Liverpool

IMPORTS AT CHARLESTON.

Week ending Sept. 21, 1888.

BRIMSTONE—580 tons, E Clampe, Licata
POTASH MURI—4,511 bgs, 1,010,464lb, H H Salmon & Co, H Bocker, Hamburg

WITHDRAWALS FROM BOND.

Week ending Sept. 24, 1888.

Acid boracic, cks	6
Antimony, cks	50
Aniline colors, pgs	160
Bay rum, gls	1,089
Bristles, pgs	25
Bronze powder, cs	4
Cacao butter, bls	228
Cement, bbls	200
Corks, bls	23
Caramel, cks	6
Castor seed, bgs	803
Dyewood ext, cks	36
Glass mirror, cs	16
Glass plate, cs	1
Glass window, cs	1,300
Glue, pgs	31
Glycerine ref, dms	9
Indigotine, cs	2
Licorice paste, cs	85
Magnesia calc, cts	5
Magnesia carb, cs	10
Matches, cs	201
Oil codliver, bbls	10
Opium, cs	18
Potash caustic, cks	15
Potash chlo, kgs	25
Potato flour, bgs	200
Saltpetre, bgs	2,524
Soap castile, bxs	500
Soda bicarb, kgs	20
Soda carb, cks	10
Soda caustic, dms	5
Sponge, bls	77
Sponge, cs	47
Ultramarine, pgs	28
Zinc oxide, cks	65

TOTAL DOMESTIC RECEIPTS.

FOR WEEK ENDING SEPTEMBER 24, 1888.

		For week.	Since Jan
Alcohol	bbls.	875	19,017
Ashes	pkgs.	..	1,463
Beeswax	pkgs.	10	672
Borax	pkgs.	..	35,070
China clay	cks.	84	2,474
Cottonseed	bags.	..	5,593
Meal	bgs.	..	35,339
Cake	bgs.	32	72,016
Soap stock	bbls.	..	1,146
Flaxseed	bush.	32,300	44,645
Grease	pkgs.	760	29,780
High Wines	bbls.	1,549	41,396
Lead	pigs.	8,147	301,329
Mustard seed	bgs.	250	6,488
Oil, Cottonseed	bbls.	283	65,410
Lard	bbls.	75	4,653
Linseed	bbls.	..	
Lubricating	bbls.	1,100	30,463
Cake	bags.	2,732	148,953
Oleo stock	pkgs.	510	14,470
Pitch	bbls.	25	2,305
Quicksilver	flks.	300	4,001
Rosin	bbls.	3,272	282,090
Stearine	pkgs.	169	5,199
Sumac	bags.	286	33,336
Tallow	pgs.	1,091	36,971
Tar	bbls.	431	21,175
Turpentine, crude	bbls.	..	1,361
Spirits	bbls.	1,244	170,674

NEW YORK DOMESTIC RECEIPTS.

For week ending Sept. 24.

ALCOHOL—195 bbls, J A Webb, B & O RR
610 bbls, J A Webb, Penn RR
5 bbls, H H Reimer, B & O RR
65 bbls, D T Mills, Penn RR
ASPHALTUM—19 bbls, A Woodward & S, str N O
BEESWAX—2 pgs, H L Pence, str, N O
1 pkg, Belt & B, str, Charleston
5 pgs, order, str, Richmond
2 pgs, J K Cilley & Co, str, Richmond
BONES—30 hhds, 7 cks, Lister Bros, str, N O
CLAY—84 cks, R W McNamee & Co, str, Chas
COTTONSEED CAKE—32 bgs, I & C Moore str, Richmond
FLAXSEED—32,300 bush, various, canal
GREASE—308 pgs, order, N R boats
20 pgs, order, Penn RR
32 pgs, F M Potter, D, L & W RR
20 pgs, Welch, H & Co, Penn RR
6 pgs, order, C RR of N J
50 pgs, Davis Oil Co, C RR of N J
59 pgs, Fayeweather & L, str, Richmond
89 pgs, H W Calef, N R boats
167 pgs, J Sinclair & Co, D, L & W RR
9 pgs, order, D, L & W RR
HIGHWINES—455 bbls, Curtis & Co, Penn RR
130 bbls, T B Kerr, Penn RR
430 bbls, G W Kidd & Co, D, L & W RR
77 bbls, Lanman & K, Penn RR
55 bbls, H H Reimer, B & O RR
140 bbls, Ross & K, Penn RR
130 bbls, J A Webb, Penn RR
132 bbls, J L Hasbrouck, D, L & W RR
LEAD—8,147 pigs, order, Penn RR
MUSTARD SEED—250 bgs, Rosenstein Bros str, N O
OIL—26 bbls, J W Harris, order, Balt In
COTTONSEED—60 bbls, W J Bowers & Co, str, Richmond
73 bbls, order, N R boats
100 bbls, Hopkins, D & Co, str, N O
50 bbls, Faith Oil Co, str, Galveston
LARD—75 bbls, Fairbank & Co, H R RR
100 bbls, Thompson B Co, N R boats
LUB—1,000 bbls, S Thompson & Co, Erie RR
CAKE—112 pgs, I & C Moore & Co, B & O RR
345 pgs, I & C Moore & Co, Erie RR
575 pgs, I & C Moore & Co, Penn RE
300 pgs, S H Weeks, Erie RR
1,400 pgs, Simmonds & G, H R RR
OLEO STOCK—60 pgs, D C Link, Penn RR
325 pgs, order, N Y, O & W RR
125 pgs, Armour & Co, Penn RR
PHOSPHATE ROCK—750 bgs, Heller, Hirsh & Co, str, Charleston
PITCH—25 bbls, forward, str, Wilmington
QUICKSILVER—300 fl, Taft, H & Co, str, N O
ROSIN—19 bbls, G W Bailey & Co, str, Richm'd
510 bbls, forward, str, Savannah
301 bbls, F W Blossom, str, Savannah
351 bbls, M W Larendon, str, Savannah
838 bbls, J Turton's Sons, str, Savannah
460 bbls, Dutton & W, str, Savannah
29 bbls, G Potter & Co, str, Charleston
416 bbls, W J Keenan, str, Charleston
100 bbls, forward, str, Richmond
85 bbls, order, str, Wilmington
50 bbls, Murchison & Co, str, Richmond
43 bbls, Hueston & Co, str, Richmond
70 bbls, Tolar & H, str, Richmond
STARCH—150 bxs, order, Penn RR
STEARINE—69 pgs, Pool & M, Penn RR
SUMAC—286 bgs, forward, str, Richmond
TALLOW—88 pgs, order, N R boats
60 pgs, A L Knight, H R RR
5 pgs, Welch H & C, H R RR
34 pgs, Kuh & T, H R RR
41 pgs, B T Babbitt, Penn RR
10 pgs, D Moffat, Penn RR
49 pgs, G Vandenhove, D L & W RR
32 pgs, H W Calef, L V RR
29 pgs, order, C RR of N J
120 pgs, H W Calef, B & O RR
4 pgs, H W Calef, D L & W RR
18 pgs, order, D L & W RR
4 pgs, H W Calef, N J Midlaad
52 pgs, order, H R RR
60 pgs, E Winter, Penn RR
15 pgs, C S Higgins, N Y O & W RR
30 pgs, H W Calef, C RR of N J
81 pgs, order, str, Richmond
11 pgs, B T Babbitt, N R boats
27 pgs, J Hecht, J Hecht, N R Boats
10 pgs, order, Penn RR
12 pgs, B T Babbitt, D L & W RR
22 pgs, order, L V RR
41 pgs, H W Calef, str, Richmond
28 pgs, Welch H & C N R Boats
8 pgs, order, N Y O & W RR
58 pgs, Welch H & C, L V RR
40 pgs, Kuh & T, C RR of N J
20 pgs, J F Ware, Penn RR
50 pgs, A D Straus, Penn RR
19 pgs, G Vandenhove, Vt C RR
13 pgs, G Goble, C RR of N J
TAR—6 bbls, Z Mills, str, Richmond
100 bbls, forward, str, Wilmington
25 bbls, order, str, Wilmington
300 bbls, F W Blossom, str, Richmond
TURPENTINE SPTS—61 bbls, G W Bailey & Co, str, Richmond
4 bbls, Hueston & Co, str, Richmond
141 bbls, Tolar & H, str, Richmond
80 bbls, Dutton & W str, Savannah
18 bbls W H Wiggins, str, Charleston
36 bbls, Z Mills, str, Charleston
7 bbls, G Potter & Co, str, Charleston
200 bbls, Murphy & Co, str, Savannah
447 bbls, order, str, Wilmington
250 bbls, Paterson D & Co, str, Savannah

WILMINGTON DOMESTIC RECEIPTS

For week ending Sept. 22.

ROSIN—2,841 bbls, Inland
TAR—823 bbls, Inland
TURPENTINE SPIRITS—1,398 cks, Inland
CRUDE—389 bbls, Inland

CHARLESTON DOMESTIC RECEIPTS

For week ending Sept. 21.

CLAY—132 cks, S C RR
OIL—3 cars, N E RR
ROSIN—422 bbls, N E RR
577 bbls, C & S RR
651 bbls, S C RR
TURPENTINE SPTS—169 bbls, N E RR
33 bbls, C & S RR
264 bbls, S C RR

BOSTON DOMESTIC RECEIPTS

For week ending Sept. 22.

COTTONSEED MEAL—1,600 bush, F RR
600 bush, B & A RR
GREASE—129 bbls, B & A RR
25 bbls, N Y & N E RR
60 bbls, B & M RR
122 bbls, Old Colony RR
32 bbls, F RR
25 bbls, B & P RR
307 bbls, 100 cks, by sea
TALLOW—18 bbls, 5 pgs, O C RR
54 bbls, 8 pgs, B & M RR
16 bbls, B & A RR
40 bbls, B & P RR
60 bbls, G J RR
21 bbls, 60 tcs, F RR
12 bbls, 1 tc, by sea

NEW ORLEANS DOMESTIC RECEIPTS.

For week ending Sept. 20.

ACID—140 cbys, Cincinnati
ALCOHOL—80 bbls, 25 hf bbls, Ill C RR
BONES—1 car, T & P RR
CANDLES—500 bxs, Ill C RR
1 car, N O & N E RR
CEMENT—200 bbls, Cincinnati
COTTONSEED—3,214 sks, Washington
17 cars, 897 sks, S P RR
3,463 sks, Bayou Sara
6 cars, 415 sks, T & P RR
3,587 sks, Greenville
768 sks, Shreveport
1,812 sks, Monroe
1 car, L, N O & T RR
1,294 sks, Cincinnati
120 sks, Tchefuncta River
4,805 sks, Vicksburg
MEAL—3 cars, S P RR
5,700 sks, T & P RR
4 cars, L, N O & T RR
GLUCOSE—75 bbls, Ill C RR
1 car, L & N RR
1 car, L, N O & T RR
GREASE—1 car, N O & N E RR
NAPHTHA—1 car, 1 tank, L, N O & T RR
OIL—10 cars, N O & N E RR
25 bbls, St Louis
1 car, L & N RR
329 bbls, S P RR
CAKE—7 cars, L, N O & T RR
PETROLEUM—1 car, L, N O & T RR
1 tank, 60 bbls, T & P RR
QUICKSILVER—300 flks, S P RR
ROSIN—11 bbls, Mobile
2 cars, N O & N E RR
15 bbls, Tchefuncta
SOAP—250 bbls, Ill C RR
50 bbls, St Louis
STARCH—2,650 bxs, Cincinnati
TURPENTINE—2 cars, N O & N E RR
24 bbls, Tchefuncta
WHITE LEAD—433 kgs, St Louis

EXPORTS FROM NEW YORK FOR THE WEEK ENDING SEP. 24.

ACID
1 cby, $28 Phila, Maracaibo

ACID MURIATIC
1 cby $4 C of Washington, Mexico

ACID NITRIC
11 cbys $89 C of Washington, Mexico

ACID OXALIC
1 cs $7 C of Washington, Mexico

ACID STEARIC
15,017 lbs $1,502 C of Washington, Mexico

ACID SULPHURIC
10 cbys $38 Philadelphia, Venezuela
2 dms, 14 cbys, $94 Phila, LaGuayra
34 pgs $365 C of Washington, Mexico

AMMONIA
16 dms $1,080 L Monarch, London

ANISEED
1 bg $20 Ozama, Hayti

BARK EXTRACT
790 lb $229 Hammonia, Hamburg

BLACK PAINT
2 cs $18 Phila, Maracaibo

BORAX
704 lb $58 Mexico, Havana
5 cs $64 Colon, Amapala

CAMPHOR
171 lb $34 C of Washington, Mexico

CANDLES
1 crate $10 Atlas, Hayti
16 bxs $24 Trinidad, Hamilton
50 bxs $60 Mexico, Savanilla
15 cs $64 Ozama, Hayti
9 bxs $18 Philadelphia, Curacao
100 bxs $190 Phila, LaGuayra
4 bxs $7 Ozama, Grand Turk
114 bxs $74 Muriel, St Lucia
10 bxs $125 Muriel, Barbadoes
2 cs $26 C of Washington, Havana
65 bxs $287 Cyril, Brazil
24 bxs $46 Philadelphia, Pto Cabello

CASSIA
1 bl $31 Mexico, Carthagena
9 bls $27 Phila, Curacao
18 bls, $54 Phila, La Guayra
5 bls 3 pgs $42 Phila, Maracaibo
4 bls $12 Ozama, Hayti

CASTOR POMACE
950 bgs $865 Trinidad, Hamilton

CEMENT
100 bbls $110 Druid, St John
3 bbls $6 Trinidad, Hamilton
25 bbls $60 A Schlaefer, Cayenne
18 bbls $45 C of Atlanta, Sagua

CHALK
5 cs $30 Paramita, Melbourne

CLOVES
1 bl $23 Mexico, Carthagena
1 bg, $17 Phila, Maracaibo
1 bg $22 Ozama, Hayti

COAL TAR DYES
2 cs $94 State of Georgia, Glasgow

COPPER PAINT
10 gls $14 Muriel, Trinidad
170 bgs $1,900 Ethiopia, Glasgow

COTTONSEED
100 gls $141 Paraminta, Melbourne

COTTONSEED SOAP STOCK
2,530 lb $44 Phila, La Guayra

CUMMIN SEED
1 bg $24 Mexico, Savanilla
1 bg $13 Phila Pto Cabello

DYESTUFF
25 bxs $287 Ethiopia, Glasgow
5 cs, $260 Hammonia, Hamburg

DYEWOOD EXT
6,000 lb $513 Saale, Bremen
54,422 lb $3,828 Hammonia, Hamburg

FARINA
16 bgs $47 Phila, Maracaibo
10 bgs $58 Phila, La Guayra
110 bgs $506 Phila, Pto Cabello

FISH GUANO
50 bbls $150 Trinidad, Hamilton
1,999 bbls $6,700 Atalanta, Ponce

FUSTIC EXT
2, 497 lb $215 L Monarch, London
5,006 lb $350 Hammonia, Hamburg

GASOLENE
600 gls $231 Paramita, Melbourne

GINSENG
12 bbls $3,000 Colon, Hong Kong

GLUE
5 cks, Eider, Bremen
146 lb $50 Canada, London
1 kg $11 Ozama, Hayti
7 cs $42 Paramita, Melbourne
2 cs $23 Colon, Punto Arenas
224 lb $12 Phila, Pto Cabello

GLUE STOCK
2,600 lb $250 Saale, Bremen

GOLD PAINT
2 cs $185 Paramita, Melbourne

GREASE
29,000 lb $1,000 Saale, Bremen
2,340 lb $60 C of Washington, Mexican ports
7,685 lb $154 C of Washington, Havana
20 bbls $208 C of Atlanta, Havana
7,430 lb $310 C of Wash, Mexico

GUANO
1 bg $20 Trinidad, Hamilton

IRON SULPHITE
20 cs $25 Colon, Santo Lima

JALAP
3 bls $72 Ethiopia, Glasgow

LAMPBLACK
2 bbls $13 Phila, Curacao
9 bbls $56 Phila, La Guayra
1 bbl $4 C of Washington, Mexico

LIME ACETATE
348 bgs $1,266 Gothia, Stettin

LOGWOOD EXTRACT
180 lb $16 Phila, La Guayra
78,872 lb $6,206 Hammonia, Hamburg

LUBRICATING GREASE
1 cs $22 Colon, Amapala
10 cs $17 C of Washington, Mexico
6 cs $38 C of Washington, Mexico

MATCHES
5 cs $30 Atlas, Hayti
10 cs $100 Muriel, Roseau
40 cs $190 A Schlaefer, Cayenne
1 bx $17 Mexico, Savanilla
5 cs $41 Phila, Curacao
10 cs $100 Manuel R Cuza, St John's
1 bx $4 Ozama, Grand Turk
1 cs $6 Colon, Colon
5 cs $37 Colon, Panama
1 cs $6 Munriel, St Lucia

METALLIC PAINT
21 gls $30 Trinidad, Hamilton

MILKROOT
2 bls $83 Henry L Gregg, Buenos Ayres

OCHER
2 bbls $13 Atlas, Hayti
1 bbl $2 Ozama, Hayti
8 bbls $40 Phila, Pto Cabello

OIL
100 gls $26 C of Washington, Mexico

OIL ALMOND
1 cs $16 Phila, Maracaibo
2 cs $35 Phila, La Guayra

OIL CASTOR
1 cs $4 Atlas, Hayti

OIL CAKE
248,000 lb $3,100 S of Georgia, Glasgow
120,320 lb $1,300 Ethiopia, Glasgow
444,861 lb $5,561 Canada, London

OIL COCOANUT
100 lb $14 Colon, Panama

OIL COD
1,984 gls $970 Paramita, Melbourne
2,150 gls $710 Colon, La Libertad

OIL CODLIVER
31 pgs $843 C of Washington, Mexican ports
15 pgs $387 Sandringham, Mayaguez
30 gls $42 Colon, Aspinwall
37 pgs $809 Cyril, Brazil

OIL COTTONSEED
48 gls $26 Ozama, Hayti
229 gls $115 Muriel, Barbadoes
56 gls $30 C of Washington, Mexico

OIL COTTONSEED CRUDE
1,977 gls $871 C of Washington, Mexico

OIL ESSENTIAL
135 cs $9,452 lb Palm Branch, London
1 dm 25 cs $2,045 Hammonia, Hamburg
1 cs $26 Phila, Pto Cabello

OIL FISH
93 gls $35 Colon, Punta Arenas

OIL LARD
1,250 gls $1,086 L City, Bristol
1,025 gls $775 La Bouroggne, Havre
3,900 gls $1,934 Geflon, Pt Elizabeth
1,250 gls $900 Ethiopia, Glasgow
2,304 gls $1,659 Saale, Bremen
200 gls $166 Ruth, Pt Elizabeth
122 gls $95 Muriel, St Lucia
3,760 gls $2,935 Paramita, Melbourne
40 gls $47 Colon, Amapala
151 gls $109 Cyril, Brazil
500 gls $375 C of Washington, Mexico

OIL LINSEED
268 gls $146 Phila, Curacao
946 gls $477 Phila, La Guayra
300 gls $156 Phila, Maracaibo
40 gls $26 Colon, Panama
50 gls $33 Colon, Corinto
64 gls $45 Colon, Buenaventura

51 gls $29 C of Washington, Mexico
12 gls $8 Phila, Pto Cabello

OIL LUBRICATING

2,498 gls $400 S of Georgia, Glasgow
1,550 gls $240 Letimbro, Palermo
303 gls $100 C of Washington, Mexican ports
24,950 gls $4,000 L City, Bristol
50 gls $17 Philadelphia, Venezuela
49,750 gls $8,000 Marengo, Newcastle
1,237 gls $250 California, Hamburg
42,750 gls $6,400 P de Coninck, Antwerp
500 gls $100 Rotterdam, Rotterdam
2,439 gls $1,029 Palm Branch, London
100 gls $55 Phila, Maracaibo
19,750 gls $3,200 Australia, Avonmouth
2,729 gls $580 La Bourgogne, Havre
19,585 gls $5,940 Polaria, Hamburg
250 gls $92 Ozama, Hayti
320 gls $137 Gefion, Pt Elizabeth
407 gls $261 Colon, Colon
20 gls $16 Colon, Guayaquil
3,000 gls $300 Greece, London
7,500 gls $1,945 H L Gregg, Buenos Ayres
53 gls $24 Muriel, Br West Indies
7,530 gls $1,361 Paramita, Melbourne
2,521 gls $1,069 Advance, Rio Janeiro
1,139 gls $648 Advance, Bahia
60 gls $22 Colon, Amapala
1,600 gls $268 C of Washington, Mexico
344 gls $85 Cyril, Brazil
29,143 gls on Gothia to Stettin in our last should be 69,143 gls; value unchanged.

OIL MEAL

1,200lb $18 Flamborough, Antigua
7,000lb $66 Flamborough, St Kitts
27,000lb $440 M R Cuza, St Johns
60,000lb $960 Golden Fleece, Bridgetown
59,000lb $1,381 Muriel, Br West Indies
75,000lb $1,013 Muriel, Barbadoes

OIL NEATSFOOT

768 gls $422 Hammonia, Hamburg

OIL OLEO

20,450 lb $1,950 Polaria, Hamburg
69,000 lb $6,200 Hammonia, Hamburg

OIL PALM

464lb $32 Phila, Curacao

OIL PEPPERMINT

2 cs $77 Henry L Gregg, Buenos Ayres

OIL RED, SAPONIFIED

250 gls $90 Henry L Gregg, Buenos Ayres

OIL ROSIN

5,000 gls $525 Henry L Gregg, Buenos Ayres

OIL SPERM

753 gls $520 S of Georgia, Glasgow

PARAFFINE WAX

11,550lb $800 C of Washington, Mexican ports
72,650lb $5,400 L City, Bristol
83,600 lb $1,500 Canada, London
19,770 lb $1,103 Hammonia, Hamburg
772 lb $50 C Washington, Mexico

PEARL ASH

5 bbls $149 La Bourgogne, Havre

PEPPER

1 bg $17 Mexico, Savanilla
2 bgs $37 Mexico, Carthagena
16 bgs $280 Phila, La Guayra
2 bgs $30 Phila, Maracaibo
4 bgs $64 Colon, San Juan
10 bgs $212 Cyril, Brazil
2 bgs $37 C of Washington, Mexico

PETROLEUM JELLY

1 cs $11 Flamborough, B W I
3 cs $23 Flamborough, Antigua
3 cs $27 Ozama, Hayti
1 bx $9 Phila, La Guayra

PITCH

1 bbl $2 Muriel, St Lucia
3 bbls $4 Muriel, Trinidad
1 bbl $2 Colon, Corinto

PLUMBAGO

880lb $80 Ems, Bremen
25 cs $63 Colon, Hong Kong

POTASH

1 dm $8 Phila, La Guayra
5 bbls $145 La Bourgogne, Havre
1 kg $16 Philadelphia, Pto Cabello

PUMICE

2 bbls $11 Mexico, Havana

QUERCITRON BARK

510 bgs $1,724 Polaria, Hamburg

ROSIN

10 bbls $15 Mexico, Havana
30 bbls $80 Mexico, Carthagena
2,000 bbls $2,500 P de Coninck, Antwerp
504 bbls $939 Marengo, Newcastle
10 bbls $30 Phila, Maracaibo
100 bbls $256 Phila, La Guayra
48 bbls $240 S of Georgia, Glasgow
55 bbls $137 Phila, La Guayra
210 bbls $600 Polaria, Hamburg
1,161 bbls $1,570 Ethiopia, Glasgow
30 bbls $60 Ozama, Hayti
10 bbls $48 Beatrice Havener, Santos
1 bbl $4 Ruth, Pt Elizabeth
2 bbls $5 Muriel, Barbadoes
1 bbl $2 Muriel, Trinidad
263 bbls $642 Paramita, Melbourne
2 bbls $6 Colon, Punta Arenas
40 bbls $100 C of Washington, Mexico
445 bbls $851 Cyril, Brazil
29 bbls $69 Philadelphia, Pto Cabello

SALTPETER

2 bbls $47 C of Atlanta, Havana
7 kgs, $33 Philadelphia, Pto Cabello

SENNA

633lb $95 C of Atlanta, Havana

SNAKE ROOT

3 bls $70 L Monarch, London

SOAP

2,200 bxs $1,337 Atlas, Hayti
100 cs $1,500 S of Georgia, Glasgow
148 bxs $321 Ponce de Leon, Barcelona
126 pgs $513 Trinidad, Hamilton
5 bxs $26 Phila, La Guayra
1 cs $11 Phila, Maracaibo
100 bxs $50 Phila, Curacoa
1 cs $20 Canada, London
7 bxs $11 Ozama, Grand Turk
1,791 pgs $900 Ozama, Hayti
1 cs $11 Colon, Kong Kong
52 bxs $95 Colon, Colon
50 cs $425 Colon, Panama
1 cs $10 Muriel, St Lucia
1 bx $4 Muriel, West Indies
3 pgs $20 Muriel, Barbadoes
1 bx $4 Advance, Pernambuco
2 cs, $11 Colon, Amapala
1 cs $11 Colon, Aspinwall
5 pgs $99 C of Wash, Mexico
507 bxs, $805 Cyril. Brazil
1 cs $26 Hammonia, Hamburg

SODA ASH

11 bbls $15 Ozama, Hayti

SODA CAUSTIC

6 dms $81 Phila, Maracaibo
4 dms $53 Phila, La Guayra
4 bbls $8 Ozama, Hayti
10 tcs — Phila, Pto Cabello
5 dms $91 C of Wash, Mexico

SODA BICARBONATE

4 pgs, $18 Ozama, Hayti
5 kgs $21 C of Atlanta, Havana
5 bx $7 Ozama, Grand Turk

SODA CARBONATE

3 tcs 1 bbl $74 Phila, La Guayra

SPERMACETI

996lb $340 La Bourgogne, Havre
2,552lb, $1,354 Hammonia, Hamburg
3,153lb $955 Palm Branch, London

SPONGE

79 bls $1,000 L Monarch, London
10 bls $415 Henry L Gregg, Buenos Ayres

STARCH

33 pgs $77 Trinidad, Hamilton
41 bbls $350 Wyoming, Liverpool

TALLOW

7,538lb $358 Mexico, Vera Cruz
1 bbl $24 Phila, Curacoa
200 lb, $20 Ozama, Hayti
8,850lb, $528 Polaria, Hamburg
3,300lb, $340, Colon, Colon

TALLOW SCRAPS

35,998lb $450 Palm Branch, London

TAR

10 bbls $27 Mexico, Havana
6 bbls $33 Phila, Maracaibo
4 bbls $10 Muriel, St Lucia
6 cs $18 Ruth, Pt Elizabeth
23 bbls $63 Muriel, Trinidad

TURPENTINE

251 gls $100 Druid, St John
57 gls $24 Trinidad, Hamilton
10 gls $5 Philadelphia, Venezuela
10 gls $5 Phila, Curacoa
242 gls $107 Phila, La Guayra
30 gls $14 Phila, Maracaibo
220 gls $123 Gefion, Pt Elizabeth
10 gls $5 Colon, Panama
380 gls $185 Beatrice Havener, Santos
400 gls $208 Ruth, Pt Elizabeth
143 gls $60 Muriel, Barbadoes
50 gls $24 Muriel, St Lucia
240 gls $94 Muriel, Trinidad
10,225 gls $4,250 Paramita, Melbourne
70 gls $36 Colon, Corinto
64 gls $38 Colon, Buenaventura
250 gls $175 C of Washington, Mexico
700 gls $309 Cyril, Brazil
228 gls $93 Phila, Pto Cabello

VARNISH

13 gls $21 Trinidad, Hamilton
½ gl $2 Philadelphia, Curacoa
10 gls $14 Philadelphia, Venezuela
61 gls $69 Phila, La Guayra
20 gls $20 Ozama, Hayti
100 gls $29 Colon, Panama
20 gls $20 Muriel, Br West Indies
25 gls $47 Muriel, Pt Spain
20 gls $36 Muriel, Barbadoes
10 gls $25 Paramita, Melbourne
165 gls $614 Advance, Bahia
80 gls $82 Colon, Puento Arenas
24 gls $16 C of Washington, Mexico
104 gls $115 Cyril, Brazil

VALERIAN ROOT

100lb $16 Mexico, Savanilla

WAX

4,480lb $896 Letimbro, Genoa

WHITE LEAD

75lb $5 Trinidad, Hamilton
7 kgs $— Phila, Maracaibo
295lb $16 Phila, Maracaibo
4 kgs $7 Phila, Curacoa

ZINC OXIDE

10 kgs $147 Phila, Maracaibo

New York to San Francisco.

American steamer Colon, cleared Sept. 21, via Aspinwall.
Oil Lard—1,000 gls, $850
Oil Linseed—2,000 gls, $1,300
Oil Lubricating—200 gls, $80
Soap—550 bxs, $2,480
Varnish—120 gls, $180
Zinc Oxide—30 bbls, $660

San Francisco Exports.

For week ending Sept. 12.

CANDLES

118 bxs, Consuelo, Honolulu

FERTILIZER

1,000lb, Lady Lampson, Honolulu

OIL COCOANUT

260 gls, Umatilla, Victoria

OIL LUB

100 gls, Umatilla, Victoria

OIL NUT

150 gls, Umatilla, Victoria

PAINT

28 pgs, Lady Lampson, Honolulu

QUICKSILVER

500 fl, Albany, China

SOAP

85 bxs, Consuelo, Honolulu
16 bxs, Albany, China
16 bxs, Albany, Japan

Charleston Exports.

For week ending Sept. 21.

ROSIN

727 bbls, Daphne, Queenstown, f o
2,576 bbls, Walle, Hamburg

SPIRITS TURPENTINE

2,329 cks, Daphne, Queenstown, fo
1,000 cks, Walle, Hamburg

Boston Exports.

For week ending Sept. 22.

ACID

20 cbys, Jennie, Halifax, etc

ASBESTOS

3,736 bgs, Milanese, London

DYEWOOD EXTRACT

12 bxs, Carroll, Halifax, etc

OIL

25 bbls, Nina Page, Barrington, etc

OIL BOILED

2 bbls, Orlando, Port au Prince

OIL LUBRICATING

20 bbls, Yarmouth, Yarmouth
13 bbls, Carroll, Halifax

OIL SPERM

25 bbls, Virginian, Liverpool

OIL CAKE

748 sks, Iowa, Liverpool
2,272 sks, Virginian, Liverpool

PAINT

10 cs, Virginian, Liverpool

TALLOW

168 tcs, Milanese, London

TAR

4 bbls, Gertrude, Grand Cayman

TURPENTINE

2 bbls, Orlando, Port au Prince

New Orleans Exports.

For week ending Sept. 21.

COTTONSEED MEAL

2,700 sks, Erl King, Bremen

SOAP

110 bxs, Wanderer, Puerto Cortez
34 bxs, S Pizzati, Utilla, etc

Philadelphia Exports.

For week ending Sept. 21

BARK EXTRACT

49 bbls, British Princess, Liverpool

OIL LUB

700 bbls, British Princess, Liverpool
25 bbls, Manitoban, Glasgow

OIL CAKE

1,700 sks, Maine, London
1,122 sks, Manitoban, Glasgow

SOAP

1,000 bxs, Maine, London

TALLOW

20 hhds, British Princess, Liverpool

Baltimore Exports.

For week ending Sept. 21, 1888.

ALCOHOL, WOOD

10 bbls, Montana, London

BARK

788 bgs, Weser, Bremen
750 bgs, Baltimore, Liverpool

BARK EXTRACT

400 bxs, Weser, Bremen
80 bxs, Mareca, Antwerp

OIL ANIMAL

20 bbls, Catania, Rio Janeiro

OIL LARD

61 bbls, Baltimore, Liverpool

OIL LUB

300 bbls, Baltimore, Liverpool

OIL CAKE

600 sks, Baltimore, Liverpool

ROSIN

500 bbls, Mareca, Antwerp
250 bbls, Alice, Rio Janeiro
250 bbls, Amy, Rio Janeiro

GOODS ON THE WAY TO THE UNITED STATES BY SAIL.

Calcutta

TO NEW YORK.

Charles Dennis, 532 bgs saltpeter, 1,000 bgs cutch, 20 cs indigo
Vigilant, 1,124 bgs saltpeter, 1,010 bxs cutch 6,195 bgs cutch, 5,000 bgs linseed, 100 cs shellac, 200 cs castor oil
Gliernix, 3,706 bgs saltpeter, 1,106 bgs cutch, 21,871 bgs linseed, 50 cs shellac, 75 cs buttonlac, 1,000 bgs ginger
Exporter, 4,152 bgs cutch, 3,000 bgs linseed, 300 cs castor oil

Cirgenti

TO CHARLESTON

Lenuccia, 500 tons brimstone seconds

Licata

TO WILMINGTON

Papa, 660 tons brimstone seconds

Singapore

TO NEW YORK

Wilhelm Anton, 11,722 pls gambier, 2,944 pls black pepper, 1,930 pls sago flour, 256 pls flake tapioca, 449 pls pearl tapioca, 117 pls gum copal, 57 pls gum damar, 288 cs gum copal transhipped
Steinvora, 11,346 pls gambier, 2,518 pls sago flour, 436 pls tapioca flour, 422 pls pearl tapioca, 2,515 pls flake tapioca, 3,799 pls black pepper, 417 pls cube gambier, 491 pls gum copal, 75 pls mace transhipped

West Coast South America.

TO NEW YORK

Angelsea, 10,000 bgs nitrate soda
John Bayley, 7,000 bgs nitrate soda
John Gill, 12,000 bgs nitrate soda
Madura, 9,000 bgs nitrate soda
S P Hitchcock, 23,000 bgs nitrate soda

TO BOSTON

Independence, 8,000 bgs nitrate soda

TO CHARLESTON

Serena, 6,000 bgs nitrate soda

TO HAMPTON ROADS

Carrie Winslow, 10,000 bgs nitrate soda
Charles G Rice, 8,000 bgs nitrate soda
Osberga, 13,000 bgs nitrate soda
St Marks, 20,000 bgs nitrate soda

TO PHILADELPHIA

Chesebrough, 15,000 bgs nitrate soda

RECORD OF VESSELS.

Port & Name.	Sailed.	Last Reported.
Calcutta.		
C Dennis	June 6..	
Vigilant	June 26..	
Gliernix	July 20..	
Exporter	Aug 10..	
Girgenti.		
Lenuccia	July 25..	
Licata.		
Papa	July 8..	Tarifa, Aug 2
Singapore.		
W Anton	June 15..	
Steinvora	July 5..	
W. C. South America.		
C Winslow	June 26..	
Independence	July 6..	
Angelsea	June 14..	
Serena	June 23..	
C G Rice	July ..	
J Baizley	July ..	
John Gill		Loading, Aug sailing
Osburga		Loading, Aug sailing
Madura		Loading, Aug sailing
S P Hitchcock		Loading, Sept sailing
Chesebrough		Loading, Sept sailing
St Marks		Loading, Sept sailing

TOTAL PACKAGES AND VALUES OF NEW YORK IMPORTS,

As returned by the Custom House for the week ending Sept. 21, 1888:

	Pkgs.	Val.
Glass, plate	208	$19,211
Glass, window	12,457	12,600
Looking glass plate	288	54,538
Ambergris	1	2,800
Arsenic	30	311
Acid, citric	26	48
Acid, oxalic	50	2,066
Acids, all other	165	15,250
Aniline colors	600	37,670
Aniline salt	20	640
Ammonia, carbonate of	27	1,071
Ammonia, muriate of	15	602
Argols	832	38,843
Alum	75	228
Albumen	22	3,012
Asphalt	....	544
Bark, cinchona	4	166
Bark, other	170	1,022
Barytes, carbonate	25	608
Bleaching powder	472	5,526
Brimstone	....	86,050
Bronze powder	....	15,733
Borax	122	735
Butter, cacao	12	596
Chalk	....	1,738
Cantharides	12	207
Chemical salts	159	1,693
Chicory	846	5,244
Cochineal	20	893
Cobalt	8	4,170
Cutch	5,908	43,397
Cubebs	60	5,101
Cuttlefish bone	44	347
Dextrine	945	5,985
Dyewood extract	120	3,724
Fish sounds	44	2,528
Flowers, arnica	11	50
Flowers, chamomile	32	429
Flowers, other	10	169
Fullers earth	4,182	3,676
Gambier	11,087	112,467
Gelatine	88	5,025
Glucose	654	2,966
Glycerine	248	11,219
Gum arabic	12	1,525
Gum animi	30	3,142
Gum, aloes	9	549
Gum copal	2,149	26,943
Gum damar	276	4,933
Gum kauri	35	1,695
Gum, shellac	466	5,148

Gum senegal	50	4,401
Gum tragacanth	22	1,463
Gum, other	64	9,326
Glue	135	6,906
Indigo	63	11,034
Indigo, extract of	20	955
Isinglass	3	731
Laurel leaves	35	575
Leeches	10	88
Madder	12	598
Magnesia	75	669
Manuring salt	....	28,847
Myrobalanes	200	217
Nutgalls	345	9,499
Nutgalls, extract of	4	172
Nux vomica	1,213	3,524
Oxide of zinc	400	3,406
Oil, aniline	30	4,461
Oil, almonds	5	797
Oil, anise seed	50	4,383
Oil, castor	2	[illegible]
Oil, cassia	200	7,461
Oil, cinnamon	20	524
Oil, citronella	327	25,580
Oil, cod	265	3,158
Oil, cocoanut	1,642	80,177
Oil, lavender	2	180
Oil, lemon	12	203
Oil, myrbane	2	26
Oil, olive	383	2,524
Oil, rapeseed	16	256
Oil, rosemary	93	1,750
Oil, tanners'	116	384
Oil, whale	5	84
Oil, other essential	12	424
Oil, all other	66	166
Opium	95	23,701
aints, unspecified	....	7,131
Paint, colcothar	50	176
Paint, drop black	15	90
Paint, iron oxide	202	605
Paint, ocher	37	169
Paint, orange mineral	80	2,530
Paint, sienna	5	56
Paint, Tuscan red	5	154
Paint, umber	25	138
Paint, Van Dyke brown	4	43
Paint, Venetian red	1547	3,670
Paint, vermilion	35	1,012
Paint, white lead	4	80
Potash, chlorate	686	10,179
Potash, carbonate	30	762
Potash, prussiate	2	137
Potash, sulphate	2,000	7,660
Phosphorus	75	4,078
Plumbago	2789	26,893
Potato flour	50	256
Quinine	132	23,780
Quicksilver	10	524
Regulus antimony	131	6,987
Rose leaves	1	104
Root, arrow	27	1,052
Root, licorice	8,023	30,385
Root, rhubarb	40	987
Roots, squills	50	408
Roots, all other	114	844
Saltpeter	2,447	11,509
Safflower, ext	10	827
Senna	35	475
Sizing	3	122
Soda ash	1,355	19,160
Soda, chloride	10	675
Soda, caustic	1,406	13,480
Soda, hypo of	294	216
Soda, nitrate	81,04	33,330
Soda, sal	1,058	3,330
Sumac	480	1,657
Sumac, extract of	30	576
Sugar of milk	31	1,154
Talc	506	483
Terra alba	200	743
Terra alum	100	407
Ultramarine	22	699
Varnish	11	734
Venice turpentine	10	82
Verdigris	1	62
Other drugs	....	25,136
Bristles	59	11,188
Rennets	14	1,357
Rennets, powdered	4	1,077
Alcohol	164	1,766
Brandy	536	7,861
Bitters	1,005	7,469
Cordials	522	1,876
Gin	941	2,677
Mineral waters	2,496	5,308
Rum	10	326
Whiskey	734	20,322
Dutch metal	23	6,117
Cassia	3,175	18,390
Cassia buds	1,160	6,212
Cinnamon	100	1,565
Chillies	273	1,890
Cloves	94	2,339
Ginger	163	1,269
Mace	80	4,389
Nutmegs	982	43,710
Pepper	7,121	142,183
Pimento	580	2,890
Cork	....	23,673
Empty barrels	....	23,723
Fustic	....	1,014
Logwood, M lbs	608	4,531
Sandalwood	....	30
Candles	....	226
Clay	....	11,394
Corks	....	816
Cocoa, bgs	4,163	73,642
Cocoa, preparations of	383	5,838
Musk	2	3,612
Plaster	....	5,279
Portland cement	21,845	20,904
Perfumery	48	5,715
Polishing powder	....	1,059
Sago	1,650	5,543
Seed, canary	104	506
Seed, caraway	900	4,721
Seed, cardamom	17	256
Seed, lycopodium	4	359
Seed, mustard	200	1,351
Seed, poppy	350	1,618
Seed, rape	4	14
Seeds, other	....	324
Linseed	3,458	12,607
Soap	36	2,937
Soap, castile	124	647
Soap stock	605	31,444
Stone, pumice	....	3,974
Stone, rotten	....	485
Tapioca	3,886	17,950
Tapioca flour	143	778

An Opening for Drug Patentees: The Alkaloids.

To the scientific chemist and student of biology perhaps no group of chemical compound, can have a greater interest than the alkaloids. But quite apart from their intense philosophic import, the alkaloids, animal and vegetable more especially, deserve our closest attention. They, when once we have been able to study their promotion and action thoroughly, will ultimately prove of the utmost help to us in unravelling many of the momentous questions of philosophy. In the menatime the vegetable alkaloids, though by no means clearly understood, are generally recognized as very powerful for good or evil. As Sir Henry Roscoe observes, the most virulent poison known to us is an alkaloid, and some of the most valuable and effective therapeutical agents of modern pathology are alkaloids as well. It is, therefore, natural enough to find many chemists eagerly taking up the study as a labor of love, and, we may add, one of considerable profit. As a result of these researches in vegetable chemistry for the somewhat evasive solid crystal or liquid alkaloids, medicine has already been enriched with a long list of drugs, so powerful and subtle in their effects that modern medicine would probably be at a loss how to proceed without them. But this branch of vegitable chemistry is an extremely difficult one, for the alkaloids which are to be found probably in every organic substance are so diversified in form, action, and properties, that only the most delicate and careful chemical processes of decomposition and analysis can lead to any satisfactory result. Perhaps this is the reason why this interesting and highly promising branch of chemical research has not been taken up more widely. It is a pity, as the alkaloids are specially valuable auxiliaries in medicine, and a lucky discovery might not only endow humanity with a new remedy but lead to fame and fortune.

Commercial analytic chemists may surely be allowed to take a leaf out of their medical brethrens' guiding book, and, while diligently searching for the origin of things, be content in the meantime with the certainty of well-marked effects of these compounds on the animal economy, and boldly offer the results of their labors to the world.

We may not know all about strychnine, for instance, but we do know that in small doses it is an invaluable medicine in the hands of the physician, and, therefore, we make use of it. There are numberless other alkaloids which, if not so powerful, may be equally beneficial as therapeutic agents.

As a matter of fact, the vegetable alkaloids present a vast and almost untouched field for researeh. Although our druggists' lists already number many more or less pure alkaloidal preparations, much yet remains to be done; many new preparations might be added with advantage. Even taking the comparatively well known coca as an example, we yet find that the alkaloid of this curious plant has been but little studied apart from its odoriferous principle, resins, &c. The basic principle cocaine is still a mystery to be unravelled by the chemist.

Turning to the eucalyptus, we find that chemistry has already seized hold of its medicinal virtues. Its antiseptic property so noticeable in arresting decay in dry or wet substances, its disinfective powers (in some instances exerted by chemically combining with the obnoxious substances and changing their nature, and in others by uniting with oxygen destroying the matter acted upon and splitting them up in one or two harmless gases) were speedily recognized. Medical science taught us that preparations from the eucalyptus diminish the internal organic combustion, ease breathing, soothe the nervous system, stimulate capilary circulation, and induce secretion by exciting the vitality of the various organs. Then the chemists stepped in and gave the public reliable preparations, effectually protected by patents, of the oils and resins of the eucalypti tribe. We have extracts, tinctures, essences, resins, of the bark, leaves, and flowers and fruit. We have also the alcoholic and distilled preparations, and the more delicate eucalytina and eucalytol. Now, it is well understood that the primary and most active agent in all these extracts from the natural oils and resinous juices of the eucalyptus is an alkaloid. Indeed, there are probably two or more of these bases in the resins and oils. Nothing very positive is known about these alkaloids, for apart from the researches of M. Berthelot (while examining the rose scented resin) no one has paid particular attention to the alkaloids apart from the other matters found in the oils and extracts. But the marked bitter flavor and highly toxic effects of purified extracts proves that the alkaloids are well deserving of detailed and special study.

We have lately heard some medical men throwing doubt on the therapeutic properties of eucalyptal and the other extracts, tinctures, etc., of the eucalyptus globulus and resinifera as being uncertain in their action. If we had more specific extracts to deal with—pure alkaloids, for instance—we should be more certain of our drugs and know better what we are about when administering them. Naturally the extractives of eucalyptus leaves, or resins, vary greatly in composition with the season, locality of growth, methods of extraction, etc., and where no great attention to the alkaline properties is paid, it will be more than probable that even carefully prepared drugs will often be deficient in the powerful basic principles specially required. To get over this difficulty, the eucalyptal alkaloids should receive greater attention, and the medical professions be supplied with pure and reliable specific preparations.

The coffee shrub is another plant rich in alkaloids which have, nevertheless, been singularly neglected. We know that the coffee berries when roasted yield a small quantity of essential oil, remarkable for very powerful and peculiar properties. It is more than likely that an alkaloid is one of the constituents of this essential oil, whether pre-existing or called up during the chemical changes during roasting, for it is bitter, and increases with the keeping of the berries; if so, however, it could never be of much commercial use, as a separate preparation, for the ratio of the oil itself is only one in about 40,000 or 50,000 (1-45,-500). But there is another equally powerful constituent of coffee, the alkaloid caffeine or theine. This caffeine exists in the coffee berry in the preparation of about one in 100 parts (1-100). It is principally to the small admixtmre of caffeine that the well-known exhilarating and sustaining power of coffee must be attributed. Surely if these basic principles could be extracted economically from coffee, we should have in them an almost invaluable medicinal preparation, a tonic, and probably in same cases an antidote against subtle poisons. But the extraction of these alkaloids for commercial purposes would most likely prove too expensive, partly owing to their minute quantities and the value of berries in the market. It is, therefore, highly interesting to know that these alkaloids are present in the shrub itself, in the leaves and young twigs. Some authorities even affirm that the caffeine at all events is rather more abundant and liberally distributed in the leaves and twigs than in the berry. Stenhouse asserts one and a half instead of the one per cent. of the berry. However this may be, it is certain that the coffee leaf should have more attention paid to it by our chemists and druggists, for it is more than likely that serviceable drugs might be extracted from them economically. Of the undoubtedly great effect of the coffee leaves a Lumdtran planter (European) gives ample evidence. Speaking of the simple infusion of the roasted leaves (drank as a substitute for tea and coffee), he says:—I find from it immediate relief from hunger and fatigue. The bodily strength is increased, and the mind left clear and in full possession of its faculties. As a beverage, the natives universally prefer the leaf to the berry, giving as a reason that it contains more of the bitter principle, and is more nutritious."

That extracts of coffee purified, probably leaving merely caffeine deprived of some of its water, the volatile oil, and perhaps a trace of tannin would be useful in therapeutics there can be no hesitation in asserting. Seeing the known effect of strong coffee (only to mention its exhilarating tendency and action on the nervous centers), it is probable that pure caffeine would act favorably in cases of sinking under over doses of anaesthetics. At all events it is to the leaf of the coffee plant that the chemist should turn his attention.

The fact that the eucalyptals act on the nervous system, principally by direct action on the spinal cord, and on the respiratory organs, and caffeine on the brain and digestive organs, are valuable guides to would-be inquirers in these difficult paths.

We might easily extend this paper by dwelling on the peculiar constituents of numberless trees and plants of all kinds, both native and exotic, wherein the alkaloids have been traced but not deeply studied.

Lactucin, the active principle of lactucarium (the crude, dry milky juice of common lettuce) is an instance; lactucarium is an efficient and manageable sedative, introduced many years ago by Professor Duncan, of Edinburgh, but whose chemistry and physiological effects are not sufficiently widely known.

Our purpose, however, is not to produce an exhaustive treatise, but rather to furnish material for thought, which may be ultimately turned to practical account in serious investigations. We need hardly dilate how stran gel the slightest chemical manipulation—the subtraction or addition of a few atoms—affect the virtues of these alkaloids. One of our most esteemed emetics is agromorphine, which is merely the ordinary morphine of opium deprived of one portion of water, making all the difference medicinally and commercially.

We have pointed out the vast importance of the alkaloids in biology, and their unique position in the vegetable kingdom; and, moreover, we have shown that this branch of organic chemistry has only been partially opened up as yet, and would probably repay the careful and energetic researches of conscientious students.—*Invention.*

A Queer Oil Town.

A special correspondent of the Pittsburgh *Commercial Gazette* writes as follows from Taylorstown: The most unique oil center in all the history of petroleum production since Drake sunk the first well, away back in the fifties, is located right here in Buffalo township; Washington county. It is a frontier oil town, and yet its foundation dates back a hundred years. It possesses all that is generally requisite to make it, in its recent social formation, a community where vice would find fertile soil and unbridled wickedness abound, and yet not a gambling-house, not a place of bad repute, not a saloon can be found within its borders. It does not even have a policeman or a night watchman; not a drop of any intoxicant is sold in its corporate limits or for miles outside. Not a crime has stained its record since Indian days until last week, when a party of drunken Wheeling roughs passing down its main street started a riot and succeeding in killing an inoffensive citizen.

But Taylorstown is remarkable in more ways than above enumerated. Every man has an oil well in his yard. The gutters of the back alleys run water with a greenish black scum atop of it, that in the market is worth $1 a barrel and a premium besides. The chirr-r-r of the band wheel and the dull creak of the bull wheel make a music that marks the march of wealth and softens the clink of the greasy gold that drops into the pockets of men who two years ago were almost as poor as Job's turkey.

REAL LIFE ROMANCES.

Talk of romance; Taylorstown is full of it. The people unconsciously in conversation with a casual stranger cite instances in real life that in the hands of an Archibald Gunter would blossom out in a garb that would outrival Barnes, of New York. Here is a sample:

Standing on the summit of Hilton's hill, to the west of the village, clustered in a scoop-shaped valley beneath, whose homes of unique and varied architecture are divided by a single, long, dusty street, my friend and guide said: "Do you see that story-and-a-half house down yonder?" and he pointed to an unpainted dwelling-house of humble dimensions near the foot of the hill on the upper side of the old road. A little child, bare-legged and lusty, and clad in a blue pinafore, was worrying a big good-natured dog on the beaten path that led down to the gate.

"Well, Tom Hilton lives there. Before the oil excitement came he owned twenty-four acres of land here. He was growing tired and discouraged and thought about selling out. He was farming and driving team then. Some friends advised him to hold on. He did, and what's the result. He's got his twenty-four acres of land yet, but there's half a dozen oil wells on them, and his income is $100 a day. That's what grit did. If he'd sold out, or if he hadn't had faith in the land after they began to prospect, he'd not been on the road to wealth to-day.

WELLS AT THE KITCHEN-DOOR.

The man that drove me over from the depot in a rad-bodied hack with carpet covered seats is an oil magnet. He has a well on his back lot. Passing up the main street—there is only one street in the town—two pretty girls set at a window sewing and occasionally peeping out from behind a screen of geraniums and purple heliotropes at the strangers passing by. Not thirty feet from where they sat, and at a distance of eight feet from their kitchen door, a cloud of hissing steam was escaping from a boiler that supplied the power for a well located within thirty paces of the dwelling. The windows of the white school-house that stands in the big open lot back of Anderson's store look out in every direction upon derricks and rigs. Its open door is within 100 feet or more of a well that is doing fifty barrels.

There is only one church in the town. It is a modest structure, and the congregation is of the United Presbyterian faith. The early settlers were of the class that worshipped God with a rifle handy and one eye open for the Redskins. Their faith and their lives were both dear to them, and the former fact accounts for the survial of the church to the exclusion of all other denominations. On property owned by the church oil wells have been drilled, and out of this revenue a part of the pastor's salary comes. They make the earth yield of her fatness for the edfication of the saints.

THE DISTRICT PRODUCTION.

The Taylorstown district, which embraces the town and the hillsides that look down upon it, has an actual capacity of 1,500 barrels per day, though the figures generally given are much below this. The village has a population, all told, of 300 persons. Standing on Hiltons hill twenty oil wells can be counted within the limits of the town proper. This hamlet that for half-a-century, up till three years ago, had suffered apparently neither change nor decay, is now dotted with derricks

and red and black oil tanks, while the air on a sultry day is redolent of petroleum odors.

Now that the hand of progress—a trifle greasy and rank-smelling perhaps, but wholesome—has shaken up the sylvan quiet of the little valley, there are odd stories told of its early history. There was a miser lived in the neighborhood, and before his death he buried thousands of dollars in gold somewhere on Mt. Nebo. Where? That's the problem the last generation tried to solve. They believed implicitly in the legend, but they died with the secret undiscovered They dug and scraped pretty much all over the green knob that bears the name of Nebo, but never the glitter of a coin did they see. That was way back in the days of the State road, when the traders "packed" all of their goods, and the thoroughfare started at East Liberty, now the East End, Pittsburgh, and passed through West Liberty, West Virginia and thence to the Ohio river. They were good old days withal, too, before the screech of the first Hempfield locomotive had disturbed the quiet of the hills, or the bustling race of oil-drillers had come to drive contentment out of men's lives.

SOME BITS OF HISTORY.

There are mighty few people in Washington county who do not know Bob Hodgens. Those who do not know him have heard of him. He is better than a township map to any stranger: he is a living guide-book to Buffalo township. "Do you see out yonder where that red gate swings into the field?" We were standing in the school house lot as he pointed north. "'Twas right there that the last indian murder in these parts occurred. There used to be a spring just at that point and a log-house just beyond it. A little girl came for water and she was killed by the side of the spring. That was nearly 100 years ago. There are the remains of an old Indian fort just beyond, near the site of my brother's house." This brother, one of the substantial farmers thereabouts, is in receipt, it is understood, of an income of about $150 a day from the oil-wells on his farm. There are very few of the farmers and town-lot holders who own oil wells outright. They lease there land for a one-eight interest in the result. It cost from $3,500 to $6,000 to drill well in this district. One well cost over $9,000, but it was an exceptional instance, and the high rate was owing to several accidents.

But with all their prosperity and wealth there is a fear like the sword of Damocles hanging over Taylorstown. The good people don't like to own to it though, ond they scoff at the suggestions from an outsider. It is the fear of fire, whether from the earth or in the shape of lightning from the skies. With oil wells and tanks on every hand, and frame dwellings between, it would be a short shift for the little village if the element ever gained a start.

"There's been a power of talk about fire," said one resident when the subject was broached, with a sneer in his words, "but the place is here yet, and it'll be here when the last of the croakers have gone."

Preparation of Lakes.

Lakes are very often prepared with the aid of artificial organic coloring matters. These lakes, excelling in their covering properties their brilliancy, and the facility with which they are applied, are particularly used in decorative painting, in the preparation of wall and colored papers, in painting and in lithography.

Lakes are always obtained by precipitating the coloring matter on a base, sometimes called color-bearer or substratum. These bases always consist of bodies in a very fine state of division, such as chalk, gypsum, blanc fixe, minium, lead sulphate, barytes, kaolin, or starch.

In some cases, the solution of the coloring matter is simply stirred together with the base, when the latter, in consequence of its surface attraction, fixes the color. In most cases, however, the coloring matter, after having been stirred up with the base, is precipitated as an insoluble precipitate upon the base by means of chemical reagents, and then forms a uniform mass with the base; or the base is precipitated in the solution of the coloring matter by the same agent, which simultaneously forms an insoluble compound with the coloring matter.

For the lakes used in decorative painting the most important base is barytes, very finely ground. Gypsum and kaolin are less extensively used. Gypsum is particularly used in imitating zinc greens and kaolin for the neutral colors, such as malachite green, fuchsine, methylviolet and eosine.

For red colors (from eosine) minium and lead sulphate are used.

The colors for wall papers are most extensively made with blanc fixe, obtained by precipitating barium chloride with sulphuric acid, because this excels all others in its covering properties. Kaolin plays an inferior part. Alumina is of the greatest importance for wall and colored papers, colored with azo-dyes, the alumina being precipitated as hydrate simultaneously with the coloring matter. For the preparation of the alumina precipitate sodium aluminate is mixed with aluminium chloride; 1 part of sodium aluminate requires 4·3 parts of a solution of aluminum chloride of 14° B. Barium carbonate is of equal importance. It is produced by adding barium chloride to a solution of the coloring matter containing sodium carbonate. the barium salt of the coloring matter being thrown down at the same time. Azo colors are mostly used in preparing these lakes.

The bases for printing and lithographic colors must naturally possess the highest degree of fineness and covering property. The principal base is aluminium hydroxide, obtained by precipitating aluminium sulphate with sodium carbonate, and filtering, washing and pressing the precipitate. In addition to this the finest wheat starch, kaolin, precipitated calcium carbonate, barium carbonate, blanc fixe and orange minium (for imitation vermilion) are employed.

The imitation vermilions are prepared by precipitating an eosine lake, from eosine and lead acetate upon orange minium as a base. According to Weber, the quantity of eosine to be used is disolved in 10-15 times its quantity of hot water, holding in solution ¾ per cent. soda crystals. The minium is gradually stirred into this solution, care being taken to prevent its settling on the bottom of the vessel. Then, the agitation being continued, a concentrated aqueous solution of lead acetate is added. The eosine lead lake is precipitated upon the minium, while the solution becomes almost colorless. The precipitate is pressed out into cakes and dried at 40-45° C.

The proportions recommended by Weber are as follows:

	Orange minium.	Eosine.	Crystallized soda.	Lead acetate.
I	20	1·6	0·04	4·00
II	20	1·0	0·025	2·75
III	20	0·6	0·02	1·75
IV	20	0·35	0·01	1·00

To produce an imitation vermilion with a blueish tinge, a blueish eosine may be used, or one-half the sodium carbonate may be replaced by sodium hydroxide, or else the minium may be replaced by a greater or less quantity of a finely pulverized white body, like gypsum, kaolin or starch. In the latter case the temperature of the solutions must not exceed 40° C., and the use of sodium hydroxide is excluded.

Weber gives the following formulæ for vermilion, with the use of starch:

	Minium.	Starch.	Eosine.	Crystallized soda.	Lead acetate.
I	25	3·0	2·0	0·05	4·5
II	25	2·5	1·6	0·04	4·0
III	25	1·75	1·0	0·03	3·0
IV	25	0·5	0·6	0·02	1·25

The shades with a blueish tinge change from red toward blue in the following order: Erythrosine, cyanosine, rose Bengal and phloxine.

A mixture of eosine with one of these coloring matters is also often used. The following formulæ are recommended:

	Minium.	Starch.	Eosine.	Cyanosine.	Rose Bengal.	Soda.	Lead acetate
I	25	3·	1·35	0·40	....	0·05	4·5
II	25	2·5	1·0	....	0·40	0·04	4·0
III	25	1·75	0·7	0·20	....	0·03	3·0
IV	25	0·5	0·4	....	0·15	0·02	1·25

For the preparation of "ordinary imitation vermilion" for decorative painting ordinary minium is used, in place of wheat starch kaolin, gypsum or ground barytes, in which case the coloring matter is precipitated with barium chloride upon minium and barytes as a base.

Yellow, blue, brown and grey artificial organic coloring matters are not at all or rarely used for the preparation of lakes, because these shades can be much more cheaply produced with earth or mineral colors. Red, violet, green and bluish green dyestuffs, such as malachite green, methye-violet, fuchsine, corallin, and especially azo-colors are, however, very much used.

The mentioned basic dyestuffs of the triphenylmethane series are partially retained by mineral bases, like kaolin. But in order to produce true lakes, they are precipitated with tannic acid (80% of the coloring matter) adding at the same time sodinm carbonate (25% of the tannin) to neutralize the free acid.

For violet lakes, Weber recommends the following proportions:

	Barytes.	Methyl-violet.	Tannin.	Crystallized soda.
1	100	0·6	0·48	0·12
II	100	1·5	1·2	0·3
III	100	2·2	2·2	0·55
IV	100	4·0	4·0	0·8

Corallin is mixed with sodium carbonate and precipitated with barium chloride, when the barium salt of the coloring matter is precipitated upon the barium carbonate.

The azo-colors which are adapted for lakes are those which are precipitated by barium chloride, alum or aluminium chloride in such a manner that the supernatant liquid remains but faintly colored,

The methods employed in the preparation of lakes from azo-colors, according to Weber, are as follows:

1. Barium chloride alone: The base is stirred into the solution of the coloring matter, and the latter is precipitated with barium chloride.

2. Barium chloride and sodium carbonate, in which the barium salt is simultenaously precipitated with barium carbonate, is only employed, when the barium salt of the coloring matter gives a very voluminous, gelatinous, but not a dense granular precipitate.

3. Barium chloride and sodium aluminate: The base is stirred into the mixed solutions of the coloring matter, and sodium aluminate after which barium chloride is added.

The following formulae for example are used, of which I is for dry pigment, II for wall paper printing, and III for colored papers;

	Barytes.	Blanc fixe.	Azo dye.	Sodium aluminate 70%.	Barium chloride.
I	100	...	10	7·5	15·
II	100	100	15	11·25	22·5
III	100	20	15	11·25	22·5

4. Sodium aluminate and magnesium sulphate, in which case the latter replace the barium chloride in method "3."

5. Sodium aluminate and aluminium chloride are employed particularly in the preparation of orange and scarlet lakes for colored paper. The solutions of sodium aluminate and coloring matter are mixed, and the aluminium chloride added below 30° C. 13 parts of the latter (of 14° B.) are used for every 3 parts of sodium aluminate. Care must be taken in adding the aluminium chloride, to the alkaline aluminate solution, that the limit of neutrality is not passed, to prevent the precipitation of a basic alumina salt.—*Drog. Ztg.*

Estimation of Fluorine in Natural Phosphates.

BY H. LASNE.

The estimation of fluorine in phosphates offers some difficulties, which can not be surmounted by the methods given in analytical text books.

The classical method consists in fusing the mass with about four times its weight of sodium carbonate and some silica, taking up with water, and estimating the fluorine in the resulting aqueous solution. This method gives good results when the body under examination contains no lime, or very little, but is not adapted for natural phosphates, and I have shown that a considerable portion of the fluorine, in combination with lime, is retained by the insoluble residue remaining after fusion and solution. The method is also inapplicable when a small quantity of fluorine is to be estimated in a large quantity of substance.

Fresenius has given a method which consists in evolving the fluorine as silicon fluoride, by the combined action of sulphuric acid and silica, and weighing the silicon fluoride as such, by absorbing it in a U tube, containing pieces of pumice saturated with water. This method is very simple in theory, but very difficult to execute. Without entering upon the precautions which must be observed in order to obtain correct results with this method, I will only observe that the substance to be analyzed must neither contain carbon dioxide nor organic matter. The natral phosphates contain both these bodies in all cases.

The method which I propose is much more generally applicable and more accurate. It consists in separating the fluorine as silicon fluoride, and absorbing the gas into sodium hydroxide solution. After the evolution of the gas is ended the solution is heated to boiling, whereby the silicofluoride first formed is converted into a mixture of fluoride and silicate, in which the fluorine is determined according to known methods.

The details of the method are as follows: The apparatus for liberating and absorbing the silicon fluoride consists of a flask, provided with a doubly perforated stopper. Tubes and stopper are dried. Into the flask is poured 50 cc. most concentrated sulphuric acid and 10 gms. pure sand, and then the substance to be analyzed in such quantity that it will yield about 0·2 gms. calcium fluoride. The apparatus is immediately closed and connected with the absorption apparatus, consisting of two wash bottles. The tube dipping into the first bottle, must be widened to a diameter of about 15 mm. to prevent its clogging by the separated silicon. The first wash bottle contains 2·5 gms. sodium hydroxide dissolved in 25 cc. water, and the second 0·5 gms. in the same volume of water.

The connections being made, a current of dry air is passed through the flask, bubble by bubble, through the tube immersed in the sulphuric acid, which is then gradually heated to finally 180—200° C. To determine the temperature a third opening may be made into the cork for the insertion of a tube, sealed at the lower end and containing mercury, into which the thermometer is placed.

At the end of one hour, during which time the flask is several times moved, the reaction is completed. Gas bubbles are no longer given off, and the atmosphere contained in the flask becomes transparent. It is now allowed to cool, the current of air being continued

The liquid, which should still show an alkaline reaction, is heated to boiling and the boiling continued for 15 minutes. Then a few drops of a 0·2% phenolphthalein solution is added to the liquid, and a current of carbon dioxide passed through until it is decolorized. After this the solution is heated to a temperature of 50° C. for half an hour, and ammonium carbonate added from time to time. In this way the silica is almost completely precipitated. The solution is then quickly cooled and diluted to 125 c.c., filtered through a large folded filter in a dry funnel into a dry beaker. 100 c.c. of the filtrate corresponding to four-fifths of the substance originally used are taken for the further analysis. In this way the washing of the gelatinous silica, which is a tedious and laborious operation, may be avoided, the error due to neglecting the volume of the precipitated silica being insignificant.

Generally the silica is completely precipitated; in case there is any doubt a small quantity of zinc oxide dissolved in ammonium hydroxide is added to the 100 c.c. filtrate and boiled until all ammonia is expelled. It is advisable to pass a current of air through the solution during this operation to prevent bumping and boiling over, because the zinc oxide adheres firmly to the bottom of the flask. The precipitate is filtered out and washed,

To the filtrate a few drops of 0·2% tropaeolin 00 is added, and then dilute hydrochloric acid to neutralization, and no more, or the glass will be quickly attacked. A solution of pure sodium carbonate containing 0·5 gms. of the anhydrous salt is then added. The object of this is to have an exactly known quantity of sodium carbonate in order to prevent too bulky precipitates further on. The solution is then boiled to expel the excess of carbon dioxide, and a small quantity of calcium chloride added. The resulting precipitate consisting of calcium carbonate and calcium fluoride, is filtered, washed and ignited. It is then treated with acetic acid and evaporated to dryness, taken up with acetic acid and filtered. The residue consisting of calcium fluoride is washed, ignited and weighed.

To make sure of the purity of the calcium fluoride it may be converted into calcium sulphate, but this operation when performed in the crucible itself requires great care to prevent loss by spirting, and to effect a complete decomposition. It is better to dissolve the precipitate in sulphuric acid and estimate the the lime.

This method gives very accurate results. In numerous phosphates which I analysed I have always found much larger quantities of calcium fluoride than is generally ascribed to them and than I have been able to detect in them by fusing with sodium carbonate. The difference often amounts to more than one-third of the fluoride found by the new method.—*Chem. Techn. Ztg.*

Compressed Oil-Gas and its Applications.

The manufacture and compression of oil-gas have formed the subject of many patents, some of which date as far back as the beginning of the present century. The oil chosen for this manufacture is the "product of heavy petroleum or shale oil once distilled; it has a specific gravity of about 0·840, more or less, and flashes at about 220° F." The manufacture, as carried on by the "Pintsch" system, is briefly as follows: Two cast-iron retorts are set in brickwork and heated in the usual way. The upper retort is provided with a series of sheet iron trays, upon which the oil is allowed to drop at the back end of the retort Thence it runs forward and finds its way by suitable pipes to the front end of the lower retort, in which there are no trays. This retort it traverses from front to back, and is by this time converted into a dense yellow vapor, which, by passing through a hydraulic main; a condenser, and a lime and sawdust purifier, is freed from tar and other impurities. Under normal conditions there is a pressure of 5 or inches of water in the retorts, gradually diminishing to about 1½ inches in the gasholder. A plant consisting of two pairs of retorts will make about 420 cubic feet of gas per hour. The gas is finally compressed to about 10 atmospheres in portable gasholders to be employed for charging buoys, etc. The illuminating intensity of the gas as made may be taken at from 40 to 50 candles when burned in a London standard Argand burner at the rate of 5 cubic feet per hour nnder a pressure of 0·5 inch. After compression, however, the gas loses about 20 percent. of its illuminating power from deposit of hydrocarbon. One gallon of oil yields from 70 to 90 cubic feet of gas. The cost varies according to the conditions of production from 5s 6d to 16s per 1,000 cubic feet.

One of the most important applications of compressed oil gas is its use for buoys and beacons. Gas buoys, as used by the Trinity House authorities, are of best mild steel spherical in form and carrying a light wrought iron superstructure, in which is a lantern enclosing the illuminating apparatus. The gas is contained in the spherical portion of the buoy under a pressure of 5 or 6 atmospheres, and burns at the rate of 0·75 cubic feet per hour. The light can be maintained for 106 nights and days without recharging. The lighting apparatus consists of a group of three small fish tail burners surrounded by a small dioptric fixed lens, which raises the intensity of the flame from 5 to from 17 to 20 candles. The focal plane of the light is 12 feet 6 inches above the sea surface, and it is visible for about 9 miles. The steadiness of the light is maintained by a highly sensitive automatic regulator, which depends for its efficiency upon the fact that the pressure of the gas acting upon a flexible diaphragm causes a distention, which sets in motion a system of levers connected with the valve that controls the supply. For the production of a flashing light the pressure of the gas upon a similar diaphragm is made to alternately open and close the pipes conveying the gas from the regulator and to the burner. A small pilot jet, fed independently of the flashing apparatus, insures the ignition of the gas each time. In 1885 the Trinity House erected two iron lighthouses similar in construction, the one at Stoneness on the Essex side of the Thames, the other at Broadness, on the Kent side. In the former is burnt a spirit of petroleum called deoderized naphtha—on Lindberg's system—and in the latter compressed oil gas. The annual cost in the one case is £117 10s 4d, as against £157 12s in the other, but as the intensity of the Stoneness light is only 60 candles, while that of the Broadness is 500, it will be seen that the advantage is greatly on the side of the compressed oil gas. At Ailsa Craig gas made from ordinary illuminating paraffin is mixed with air in the proportion of 35 parts to 65 parts of oil gas and used both for the lighthouse and for five "Otto" silent gas engines employed in compressing air for working two automatic fog signals. The cost of the gas (for oil and coal alone) is about 5s 9d per 1,000 cubic feet. On December 31st, 1887, there were in use in different parts of the world, on the Pintsch system alone, 149 gas buoys, 17 lightships, and 58 beacons and other lights. Of these, 50 buoys and 39 other lights are on the Suez Canal. Great Britain comes next with 30 gas buoys four lightships, and eight other lights. Another important and growing application of compressed oil-gas is its use for the lighting of railway trains. It was probably first tried with satisfactory results in 1871 on the Lower Silesian Railway, Germany, but now is very generally adopted by the leading lines of this country and Germany. In England the Pintsch system has a formidable rival in that of Pope & Son, whose patent is in use by the London and Northwestern and Great Western Railways. In all it is calculated that there are 9,000 carriages fitted up on both systems in Great Britain and about 19,000 on the Pintsch system abroad. The chief difference between the two systems is that in the case of Pope's the oil is introduced as a fine spray into the lower retort first, and that no trays are employed in either retort. The Dublin Steam Packet Company have adopted compressed oil-gas for the mail rooms on board their steamers. The gas is made at Holyhead, compressed in gasholders to 10 atmospheres, carried by a ¾ inch lead pipe to a filling box on the pier-head, and thence, by a flexible hose, to a receiver on the main deck.—*Jour. Soc. Chem. Ind,*

THESE TWO BRANDS OF

LUBRICATING OIL

Are the Best

AND MOST POPULAR

In the Market.

Have been endorsed by hundreds of the largest consumers and recommended by the leading Engine Builders in the Country.

STANDARD OIL COMPANY,

CLEVELAND, OHIO.

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DOMESTIC TRADE DEPARTMENT

OF THE

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CONTINENTAL AND **"WESTMINSTER"**

150 FIRE TEST.
WATER WHITE.

"ATLANTIC"
In convenient cans, each furnished with a nozzle.

OILS.

Sole Manufacturers of the Celebrated Brands

"OPTIMUS" (A) and (O) LUBRICATING OILS.

For Car Boxes and Heavy Journals.

CASOLINES all Gravities from 62° to 105°. Orders will receive prompt attention

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Having representatives in the primary markets, we will be glad to name prices for

SPIRITS TURPENTINE

AND ALL GRADES OF

ROSINS

Delivered in any of the Southern and Western Markets.

STANDARD OIL COMPANY,

LOUISVILLE, KY.

WATERS PIERCE OIL CO.,

REFINERS OF

PETROLEUM.

Manufacturers of CAR and AXLE GREASE.

PRINCIPAL OFFICE,

No. 600 North Fourth St., St. Louis, Mo., U.S.A.

Depots in all Towns in the SOUTHWEST and OLD MEXICO.

The Standard Lubricating Oil of America

FOR RAILROADS.

Galena Engine, Coach and Car Oil

Gravity 26°, 27°, 28°, 29°; Cold Test, 10° to 15° deg. below zero.

No freezing in coldest weather, and entire freedom from hot journals at any time; perfect uniformity at all seasons of the year. Saves forty per cent. in wear of brasses, as its exclusive use upon a majority of the leading railroads has demonstrated.

SHOWING BETTER RESULTS THAN ANY OIL EXTANT.

REFERENCE FURNISHED ON APPLICATION.

GALENA OIL WORKS, Limited

CHAS. MILLER,
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THE CHIEF TROUBLE WITH OIL

that does not burn satisfactorily is that the lamp wick is made from short, irregular staple, is poorly woven or is full of foreign substances. A wick having one or more of these faults has a low capillarity to begin with, and after short service begins to clog in the burner and char at the top causing a dim, smoky flame from the best refined oil. Since, however,

THE AMERICAN WICK

has been introduced this fruitful source of annoyance and dissatisfaction has been largely done away with and there is now no excuse for the trade's selling poor wicks or for consumers' accepting them. It is made from pure, long staple cotton, is woven with absolute uniformity and is chemically treated during the process of manufacture in a way to remove the last vestige of foreign substances. The result is a ***PERFECT WICK*** which is now sold and recommended by the very houses--the lamp, burner and oil dealers--whose interests compel them to recommend the best wick made.

We make wicks for every style of burner in the market. For samples, prices and all information, address

AMERICAN WICK M'F'G CO.,

JOHN DOUD, General Manager, *26 BROADWAY, NEW YORK.*

POPULAR SPECIALTIES

Wide awake Jobbers and retailers realize that there are certain commodities that become standards in consequence of their increasing popularity year after year. Not because they are forced upon the trade, but on account of their intrinsic worth. It is the keen tradesman that

caters to this established demand instead of taking advantage of the consumer by palming off on him some cheap imitation. The former course is a practical protection of commercial relations, while the latter destroys confidence and injures trade. Practical experience of nearly a quarter of a century has taught the shrewd consumer that there is no better leather preservative known to the trade than ***VACUUM HARNESS OIL.*** The peculiar process and care in manufacture, secures a uniformly good article. It penetrates the leather, making it soft and pliable. giving double wear to Harness, Carriage Top, Shoes, etc. Some people, however, will count the first cost and for this trade is the ***FAVORITE HARNESS OIL*** of the same grade, only a little less in quality at "way down" prices. The only satisfactory cheap oil. Another essential to every well regulated stable; almost as indispensable as hay; is the ***VACUUM HOOF OIL;*** a peculiarly penetrating and searching salve. Horsemen know it is the great remedy for Sores, Wounds, Galls, Sprains, Quarter Crack. These goods are offered to the trade at discounts that pay for handling, and on liberal credit. Send for prices and other information to

Address VACUUM OIL CO., Rochester, N. Y., or

No. 45 Purchase St., Boston Mass.
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The Albany, Liverpool, Eng.

No. 208 Home Insurance Building, Chicago.
No. 216½ Wash. Ave. So., Minneapolis.
No. 231 Smith's Wharf, Baltimore.
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No. 96 Water St., New York.
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No. 150 First Ave., Pittsburg, Pa.
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Choice Pressed Herbs, Leaves, Roots, Barks and Flowers.

OUR FACILITIES for obtaining supplies of every variety of the finest herbs, leaves, roots, barks and flowers are unequalled, and we offer pharmacists the choice of the market in this class of products. Herbs, leaves and flowers are put up in ounces; roots and barks in pound packages only. Each ounce package bears the common and Latin names, with synonyms in English, German and French, and the properties and dose. With poisons the antidotes are given.

We use in putting up our packages of pressed herbs an impervious paper in the case of all Drugs depending for their activity on a volatile constituent, thus retaining the strength unimpared.

Send for complete list of Pressed Herbs, Leaves, Roots, Barks and Flowers.

Fluid Extracts.

Specially prepared for the convenience of Druggists for the extemporaneous preparation of Tinctures, Syrups, Elixirs, Wines, Etc

WE PREPARE a little pamphlet detailing the advantages of some of these fluids, which druggist will find especially useful, and we will send this on application. We may mention here a few illustrative preparations.

Fluid Aloes
Concentrated Extract Bay Laurel
Fluid Extract Blackberry
Fluid Extract Buchu and Juniper with Acetate of (Potassium
Fluid Catechu
Fluid Extract Wild Cherry Bark, Detannated
Fluid Wild Cherry Bark for Syrup
Fluid Extract Cinchona Compound
Fluid Extract Cinchona, Red Compound
Fluid Extract Sarsaparilla Compound for Syrup
Fluid Extract Ergot
Fluid Extract Gentian Compound
Fluid Ginger, Soluble
Fluid Extract Golden Seal
Fluid Extract Ipecacuanha
Fluid Extract Licorice for Quinine Mixtures
Fluid Opium, Aqueous and Deodorized
Fluid Opium, Camphorated
Fluid Extract Rhubarb
Fluid Rhubarb, Aromatic
Fluid Rhubarb, Sweet
Fluid Tolu, Soluble
Aromatic Syrup Yerba Santa

It will at all times give us great pleasure to mail on application, complete descriptive price list and literature descriptive of our products, and to afford any information in our power regarding them.

PARKE, DAVIS & CO.,

MANUFACTURING CHEMISTS,

Detroit, Mich. **New York, U.S.A.**

MERZ CAPSULES.

Reduction in Price.

1000 Merz Improved Empty Capsules in Lacquered Metal Can, 65c.

500 Hard Filled Capsules in Lacquered Metal Can:

Copaiba Para ..... 40c per hundred.
Copaiba and Oleoresin Cubebs ..... 80c " "
Merz Compound Sandalwood ..... 75c " "

OVER 100 STANDARD FORMULAS IN HARD AND SOFT FILLED.

LARGE QUANTITIES IN BULK A SPECIALTY

Liberal Discount to Jobbers. Same Uniform Reduction in Boxed Goods.

Send for Price List. **The Merz Capsule Co., Detroit, Mich.**

LANOLINE LIEBREICH

(PATENTED.)

The New Base for Salves and Ointments, is of White Color and Perfectly Odorless; for Burns, Wounds and all Skin Diseases. Has valuable antiseptic properties.

MANUFACTURED BY

Messrs. Benno-Jaffe & Darmstædter, Martinikenfelde, Germany.

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SOLE AGENTS FOR U. S.

ROGERS & PYATT,

IMPORTERS,

78 & 80 Maiden Lane, New York.

Shellac, all grades. **Verdigris,** Pods, Granulated and Powdered.
Carbolic Acid, **Cudbear.**
Powd. Nit. Strontia, **Madder,**
Powd. Nit. Barium, **Red Argols,**
Gum Sandarac, **Gum Senegal.**

MANUFACTURERS OF BLEACHED SHELLAC, BEST QUALITY.

H.W.J.

DIAMOND BRAND.

TEREBENE.

Water White. **Inactive.**

The only reliable test of the purity of terebene is its perfect inactivity to polarized light. Careful examination of different brands now on the market has shown our preparation to be the only one free from turpentine. All other samples containing from 5 to 50 per cent.

We use only the best unadulterated oil of turpentine and careful tests are made with the polariscope during the whole process of manufacture.

The H. W. Jayne Chemical Co.,

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BAUXITE

(Hydrate of Alumina-Alum Clay)

LUMP AND GROUND.

IRISH HILL BRAND.

Highest in Alumina, and Lowest in Iron produced
Best article wherefrom to Manufacture
Alum, Sulphate of Alumina, Alum Cake, &c.

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THE STANDARD BRANDS FOR YEARS.

BAKER'S CASTOR OIL, "Crystal," "A.A." & No. 3.

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GLASS BOTTLES & GLASSWARE SUNDRIES,

Show Bottles, Tubes, Jars, &c. for Exhibitions.

BREFFIT'S AIRE & CALDER BOTTLE CO., Ld., London, England.

J. W. BINNEY, Sole Agent for the U. S.
227 Pearl Street, NEW YORK

DRUG MARKET.

Note—*Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures.*

The prices current will be found on pages 49 and 50.

TUESDAY EVENING, Sept. 25, 1888.

Trading is active in all departments of the drug market, but at the same time speculative buyers are in the minority, the bulk of the goods changing hands, going into the legitimate channels of consumption. The active demand, coupled with short stocks of many descriptions, is causing a steady and marked improvement in values, and we have again to record numerous important changes in prices, as will be seen by the appended lists:

ADVANCED.	DECLINED.
Opium.	Oil Bergamot.
Morphine.	Oil Sassafras.
Brazil wax.	
Japan wax.	
Tamarinds.	
Oil clove.	
Oil lavender.	
Oil peppermint.	
Arnica flowers.	
American saffron.	
Camphor.	
Tinnivelly senna.	
Golden seal.	
Senega root.	
Rape seed.	
Cloves.	
Pimento.	

Opium.

The improvement in the tone of the opium market has resulted in an advance of about 10c per pound, the closing quotations to-night being $2 95@3 for single cases and $3@3 25 for broken lots according to seller and quantity. It is reported that a heavy movement has taken place here during the past few days, but the particulars have been kept quiet. There have been sales of 100 cases or more, spot and to arrive, at prices in some instances above the late quoted prices, and it is now intimated that the stock available for this market has been closely concentrated. The advance to-day still leaves our prices considerably below the parity of London and Smyrna, late cables from the latter point making the quotation for talequale, there, quivalent to $2 30 in bond. The market here closed firm to-night and the tendency was upward. Powdered opium advanced to $4 10@4 25 but probably the inside price would still be shaded by some holders.

Morphine was advanced yesterday to $2 25 in bulk, $2 30 in ounces, and $2 50@2 55 in eighths inclusive of packages. The demand has been stimulated by the advance, but manufacturers are reported to be short of stock, and accepting orders for limited quantities only, and from regular customers. A further advance is anticipated. The price of Scotch (Smith's) has been advanced to $2 10@2 30 as to style of packing but as the manufacturers are oversold there is little or nothing obtainable here.

Quinine.

There has been no actual change in the condition of the quinine market, though if anything, the feeling is not so firm as at this time last week. Consumers and distributors are still buying freely, and pay 35@37c, as to brand and holder, for large bulk. No speculative inquiry is noted. At the London bark sale to-day, 2,900 bales East Indian were offered and 2,700 bales sold at full previous prices; some cables say at an advance of 5% on the last rates. It is considered in some quarters a very curious fact that our market has so reluctantly and slightly responded to the recent advance in London. The reason is supposed to be that too many speculators have been caught on the wrong side and that as a consequence speculation is dead. According to good authority no article on the list holds such good promise as quinine. In support of this it is stated as a fact that may not be generally known, that at the lowest prices at which bark sold this year, the cost of the alkaloid to the manufacturer must have been at least 1s 5d@1s 6d, and since the advance in bark 1s 7½d@1s 8d, or 40c. It has been the obvious object of the German manufacturers to follow a "freezing out" policy, and by taking heavy losses themselves drive out some of their weaker competitors, but in this they have apparently failed, as no manufacturer has stopped; furthermore, the recent advance in bark is said to be mainly due to the sudden change from great bulls to bears by these manufacturers. Considering the fact that while there may be plenty of bark in sight, shipments from East India are constantly falling off, and this it is believed must finally result in a great improvement in the position of the article. In that event those who take a roseate view of the future of quinine, think the alkaloid will be worth a good deal more money in 1889 than in 1888, and more in 1890 than in 1889. We are indebted to Messrs. Schroeter & Co. of Amsterdam for the following particulars regarding the sale of Java bark to take place in that market on Thursday, October 4th: "Sales of 200 cases and 1,559 bales of Java cinchona bark, net 146,377 kilos, containing 5,470 kilos sulphate of quinine." Full particulars of the quantities

SALOL.

The new remedy for Rheumatism and Rheumatic Affections, Diarrhœa, Dysentery, Typhoid Fever, etc. Manufactured by Dr. F. VON HEYDEN'S Successor at Radebeul-Dresden.

PHENACETINE-BAYER
The New Antipyretic.
(PARA-ACETPHENETIDINE)
$C_6H_4 \langle {}^{O.C_2H_5}_{NH\,(CO-CH_3)}$
Manufactured by the
Farbenfabriken vorm. Friedr. Bayer & Co.,
ELBERFELD.

This new antipyretic and antineuralgic is attracting considerable attention here and in Europe, and experiments so far made go to show that while it compares favorably with other antipyretics it is free from their deleterious effects.

SULFONAL-Bayer.
The Newly Discovered Hypnotic of Profs. Baumann and Kast.
Manufactured by the
Farbenfabriken vorm. Friedr. Bayer & Co.,
ELBERFELD.

We beg to advise the trade that we are Sole Licensees and Sole Agents for the United States for the above Chemicals, and we will be pleased to furnish quotations on application.

W. H. Schieffelin & Co.,
170 & 172 William St., NEW YORK.

NEW YORK
Quinine and Chemical Works
LIMITED
Office. 114 William St., New York.
MANUFACTURERS OF
QUININE, MORPHINE, ALOIN
SANTONINE. COCAINE.

McKesson & Robbins,
IMPORTED BAY RUM.
We offer this article of our own direct importation, made expressly for us from a standard sample, hence a uniformity in odor and general characteristics. Original puncheons and barrels. Proof never below 108°. Prices and Samples on application.

ROSENGARTEN & SONS, 12 Gold Street New York.
MANUFACTURING CHEMISTS, Philadelphia.

Sulphate of Quinine,	Bromide of Potassium,	Hypophosphites,
Muriate of Quinine,	Nitrate of Silver,	Subnitrate of Bismuth,
Citrate of Iron and Quinine,	Iodide of Potassium,	Spirits of Nitre,
Sulphate of Cinchonine,	Sulphate of Morphine,	C. P. Acids,
Sulphate of Cinchonidine,	Acetate of Morphine,	Tannin,
Sulphate of Quinidine,	Muriate of Morphine,	Ressublimed Iodine,
Bromide of Ammonium,	Nitrate of Ammonia,	Ether.

C. F BOEHRINGER & SOEHNE,
MANUFACTURING CHEMISTS.
Mannheim, Germany, and 49 Cedar Street, New York
QUININE.

Quinidia,	Codeine,	Resin Jalap,
Cinchonidia,	Digitalin,	Salicin,
Cinchonia,	Ergotin,	Spartein,
Chinoidine,	Koussein,	Strophanthin,
Acetanilid,	Morphine,	Strophanthi Tinct.
Aconitia,	Papain,	Terpinhydrat,
Arbutin,	Pelletierin,	Terpinol,
Atropia,	Pilocarpin,	Urethan,
Caffein,	Physostigmin,	Veratrin,
Cocaine,		

ALL of Wax, Honey.
(Branch of Dryden & Palmers)
Rock Candy. D. & P.
" " Syrup.
Sugar Coloring, &c.
F. G. Strohmeyer & Co
122 Water St., N. Y.

OLEUM OVI, or, OIL of EGG
A Positive Cure for Piles.
Sold by CHAS. N. CRITTENTON, 115 Fulton St., New York, and SMITH, KLINE & CO., Philadelphia, Pa.
or sent to Jobbers address on receipt of $4.00 per doz. Correspondence Solicited.
Chas. W. Sitterly, Sole Proprietor, Box 14, Guilderland, N. Y.

IODOL
(TETR-IODIDE OF PYRROL).
The New Antiseptic, Replacing Iodoform.
E. MERCK, Manufacturing Chemist,
Sole Licensee for the United States.
No 73 William Street - - - - - NEW YORK.

F. E. McALLISTER,
Seed Merchant and Importer
No. 22 Dey St., New York.
Canary, Rape and Hemp Seed, Mocking Bird Food, Mixed Bird Seed in cases, Bird Gravel, &c.

Schoellkopf, Hartford & Maclagan, Limited.
3 Cedar St., NEW YORK. 103 Milk St., BOSTON.
Senega Root Cascara Sagrada Bark,
Buffalo Aniline Colors.

Established 1836.
Croton Laboratory
OFFICE, 26 CEDAR ST., N. Y.
J. B. Hendrickson
IMPORTER AND REFINER OF
Crude Saltpetre and Nitrate of Soda.
Best qualities always on hand at lowest price.

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MANUFACTURERS OF
Pomades and Materials for Perfumery
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ESSENTIAL OILS,
ROSE AND ORANGE FLOWER WATERS.
SOLE AGENTS IN THE UNITED STATES AND CANADA.
LIEBMAN & BUTLER NEW YORK

Oil of Wintergreen.
Norwegian Codliver Oil.
Oil of Peppermint.
Powd. Sugar of Milk.
Centian Root.
Gum Mastic.
German Chamomiles "new."
Canary Seed.
FRENCH, RICHARDS & Co.
Philadelphia, Pa.

Bermuda Ochre.
Single Washed,
Double Washed,
Extra Floated
Fully equal to ROCHELLE.
BERMUDA OCHRE
GRIDLEY & CO. Sole Agents of the BERMUDA OCHRE CO.,
87 Maiden Lane New York

Frankfort o/M. **ZIMMER & CO.** GERMANY.
OFFER TO THE TRADE THEIR STRICTLY PRIME
QUININE
on spot and for future delivery, in quantities to suit at lowest market quotations.
Represented b RICHARDSON DRUG CO., St. Louis, Mo.
JOHNSON & JOHNSON, 92 William St., New York.

LIEBMAN & BUTLER.
IMPORTERS OF
BRIMSTONE,
58 Stone St., New York

JOHN J. THOMSEN,
W. Balto. and 66 & 68 Germans Sts.
BALTIMORE, MD.,
IMPORTER AND EXPORTER OF
DRUGS
AMERICAN INDIGENOUS
OILS, ROOTS, BARKS, HERBS
A SPECIALTY.

to be offered and the percentage of quinine sulphate, and total alkaloids in each lot, may be seen at this office.

Receipts of quinine for the week.....52,000
Since Jan. 1.....1,317,775
Corresponding period last year.....1,587,866

Miscellaneous.

The demand for nearly all the articles on the list show steady improvement, and prices, as a rule, are very firm, with the tendeucy upward.

Alcohol is steady under good demand.

Carbolic acid is still unsettled, but without quotable change.

Castor oil is without further change, but the sharp competition between manufacturers has a depressing effect upon prices:

Cuttlefish bone is cabled 24s, as bottom at Trieste, which is equivalent to 22c laid down here. This market does not sympathize.

Brazil wax tends upward owing to an advance in London of 5@8s. We quote No. 1 15c, No. 2, 13½c and No. 3, 12½c. Japan wax has advanced to 12½c the stock here being practically exhausted in consequence of delayed arrivals. There are said to be large stocks on the way and a reaction in prices is looked for upon their arrival.

Lycopodium has been in active demand and we get sales of 15 cases at 38½@39c.

Nitrate of strontia has also sold more freely, 40 kegs having been taken within the range.

Tamarinds are in demand. All the recent arrivals in barrels have been taken at 8c, and further lots now on the way have been sold at 7½c per pound in barrels, and $5 per keg. The stock in the primary market is said to be entirely exhausted.

Quicksilver at 60@65c, as to quantity, is in good demand.

Balsams.

The jobbing demand for balsam copaiba and balsam tolu continues good and prices are sustained.

Essential Oils.

The principal interest centers in peppermint and clove oils, both of which are active and higher. For H. G. H. peppermint there has been a large demand for export and home account, resulting in sales of 210 cases at $3@3 10. Holders now demand $3 25@3 50, and the tendency is higher. Tin oil has also been active, advancing to-day to $2 30 for Western and $2 50 for Wayne county. Sales of about 4,000 lbs have been made on private terms, and there are further inquiries.

Sympathizing with the strong position of the spice, clove oil is rapidly advancing, and at the close distillers were quoting $1 40@1 50, and offering very sparingly at the inside price. The demand has been active, and we note sales of 3,500 lbs at $1 35@1 45, the bulk of it being sold before the last advance.

Oil sassafras is offered at 60c for early arrival, and 10 cases which came to hand yesterday sold at that. Small spot lots command 63@65c.

Oil bergamot has declined to $2 60 for prime, a reduction of 10c.

Oil lavender, as intimated in our last, has advanced to 70@85c for garden and $2 25 for flowers.

Flowers.

American saffron has been in brisk demand, all the cheap lots, aggregating some 30 bales, having been bought up at 14@17c. The stock here is very low, and holders have advanced their quotations to 18@20c. Arnica flowers are extremely scarce and have advanced to 8@9c. Chamomiles are in great demand at steady prices.

Gums.

For all descriptions there is a brisk consuming demand and with generally light stocks prices are tending upward, though there have been few quotable changes within the week. Refined camphor, owing to the scarcity and high cost of crude has been advanced by the manufacturers to 24¼c in barrels and 25c in cases, but outside holders might still shade these figures.

Herbs and Leaves.

The only features of special interest in this department are the advancing tendency of rose leaves and the arrivals and sales of new crop Tinnivelly sennas. Recent arrivals of the latter have sold at 15@22c as to quality; an advance on last quotations.

Roots.

Golden seal root sold yesterday at 38c but since then the price has advanced to 40c. New crop cascara segrada is arriving and sales have been made at 17c; the tendency is toward much higher prices. Western senega is scarce and in demand the last sales were at 48c but 50c is now demanded. Hondura sarsaparilla has been in active demand with sales of 50 bales various grades within the range, the market closing higher. Mexican is getting scarce on the spot as there have been no recent arrivals and the market consequently is decidedly higher. Cut rhubarb is in large demand for which the supply of prime cuts is said to be inactive. Cutters now accept but small orders at the current prices, which are said to be below the cost of production. Active competition has reduced the number of cutters from six to two.

Seeds.

Trading is fair in most lines, and prices are maintained. Celery seed and grains of peradise are tending upward, being extremely scarce on the spot. German rape seed is in active request, with sales of 50 bags at 3¾@4c English is in better supply and brings 4c.

Shellac.

Orders are coming in rapidly and full prices are readily paid. A further advance is imminent, as stocks of free goods of desirable marks are much depleted. The S. S. factory has been closed, and there is said to be no stock of this grade available in London at prices dealers can afford to pay. In fact, there is practically no stock of what is known as "American" brands in Loudon. Since we last wrote here have been further sales of 700 cases mostly D. C. and V. S. O. at previous prices. Cables today from London report an advance of 1s at the public sale.

Spices.

The jobbing demand for spices is satisfactory but inv ice lots are neglected. Cloves are advancing under speculative manipulation in London. Pimento is higher.

Vanilla Beans.

we are accused of "bearing" the market in order to reduce prices in Mexico. If this be so, our warehouse should be the place to secure bargains.

DODGE & OLCOTT,

Curers. Importers. First Hands.

86 & 88 William Street, NEW YORK.

Pyrethrum Cinerariæfolium.

B. W. B. & CO.

Powdered
Dalmatian Insect Flowers.

Insect Powder is valueless unless **Pure** and Ground from prime Flowers. The above brand has been in the market since 1853. Its excellent quality has been maintained since its introduction and at present it is recognized by the trade as unexcelled. Besides its superior quality its fineness recommends it, being ground more finely than others.

We offer only one kind pure, uncolored.

Sample and quotations on application.

CODMAN & HALL,
125 Milk Street, BOSTON.

SEEDS

THE ALBERT DICKINSON CO.
Dealers in Timothy, Clover, Hungarian, Millet, Red Top, Blue Grass, Lawn Grass, Orchard Grass, Pop Corn, &c.
Specialties: FLAX SEED and BIRD SEEDS.
Warehouses: 115, 117 & 119 Kinzie St., OFFICES, 115 Kinzie St., 104, 106, 108 & 110 Michigan St., CHICAGO.

Charras Essential Oils.

CLAYTON ROCKHILL,
COMMISSION MERCHANT,
30 PLATT STREET, NEW YORK
SOLE AGENT IN THE UNITED STATES FOR
CHARRAS & CO., Nyons Drome, France

JOHN SOFIO & CO.'S Essential S Oils.

MANUFACTURERS OF
Lemon, Bergamot AND Orange.

The quality is uniform and guaranteed absolutely Pure. Samples and Quotations furnished on application to
THOMAS LEEMING & CO., 18 College Place, New York.
Sole Agents for United States and Canada.

LEO BERNARD & CO.,

Raw Materials for Perfumers, etc.

Bourbon Vanilla Beans.

228 Pearl St., New York.

Crude, Powdered, Ground AND Crushed DRUGS

R. HILLIER'S SON COMPANY,
IMPORTERS and DRUG MILLERS,
46 CEDAR STREET, NEW YORK.

MEXICAN VANILLA.

TYLER & FINCH,
54 Cedar St., NEW YORK,

Offer choice selections from the best stocks of the best curers in Mexico, including every quality from the cheapest to the finest of the crop.

Packages of any size made up for safe shipment to any part of the world.

MEXICAN VANILLA BEANS

High Gravity Essential Oils of the Finest Quality.
CHARLES E. HIRES, RECEIVER and IMPORTER,
117 & 119 Arch Street,
PHILADELPHIA, U. S. A.

MEDALS AWARDED
Paris, Sydney, Milan, Turin, Melbourne & Liverpool Industrial Exhibition

GIOV. RESTUCCIA & CO.'S
Famous Essential Oils
—AND—
CELEBRATED OLIVE OILS,
MESSINA, (SICILY,) ITALY.

EXTRA SUPERFINE OIL OF LEMON,
OIL OF ORANGE, SWEET AND BITTER,
OIL OF BERGAMOT,
OIL OF MANDARINE,

Chas. Morningstar & Co., 48 Park Place, N. Y., SOLE AGENTS FOR THE U. S. AND CANADA.

THE ONLY

GENUINE AND IMPORTED

Johann Hoff's Malt Extract

Introduced into the United States by LEOPOLD HOFF in 1866
And sold from Hoff's Malt Extract Depot, 542 Broadway, N.Y.—LEOPOLD HOFF, Prop'r.

Agency Transferred to JOSEPH S. PEDERSEN in - - 1868
Depot, 2½ Murray Street, New York.

TARRANT & COMPANY appointed SOLE AGENTS in - 1869
278, 280 & 282 Greenwich Street, New York.

CAUTION.

The trade is particularly warned against a so-called Johann Hoff's Malt Extract, manufactured in Philadelphia, which is put up in squatty bottle and having the cork covered with yellow wax, in order to give the package a foreign appearance.

The Original and Genuine IMPORTED

JOHANN HOFF'S MALT EXTRACT.

is invariably put up in bottles as per cuts, especially adapted for this market in 1869, and the preparation in this style of package is Guaranteed Genuine and Imported by the signature of TARRANT & CO, on the metallic cap, sole Importers and Agents.

TARRANT & COMPANY,
Wholesale and Importing Druggists,
278, 280 & 282 Greenwich St., New York.

EST'D. 1834.

H. TROMMSDORFF

Erfurt Chemical Works, Erfurt, Germany.

OFFER TO THE TRADE A FULL LINE OF

Scientific, Pharmaceutical, Technical Preparations & Chemicals

THROUGH THEIR AGENTS

EIMER & AMEND.

NEW YORK.

CHEMISTS' SUPPLIES

Strictly Chemically Pure Acids,
Strictly Chemically Pure Chemicals
Superior Bohemian Glassware,
Superior Filterpapers,
Superior German Porcelains,
Superior Heating Apparatus,
Superior Graduated Ware,
Perfect Balances and Weights,
Perfect Acid-proof Stoneware,
Platinum Vessels and Salts,
Selected Drugs, Chemicals and Pharmaceutical Preparations,
All Testing Appliances and Reagents

OFFERED BY

EIMER & AMEND,

205, 207, 209 & 211 Third Avenue, NEW YORK

SOLE AGENTS FOR

H. Trommsdorff's Chemicals,
Joseph Kavalier's Bohemian Glass,
Schleicher & Schull's C. P. Filter-papers,
E. Marchs' Sons, German Stoneware,
Dr. C. Scheibler's Polariscopes,
Professor Jolly's Spiral Balances

PERFECT POSTAL PACKAGES

Improved QUALITY, Reduced COST.

Lightest, Strongest, Cheapest.

ABSOLUTELY SAFE FOR MAILING LIQUIDS, OILS, SYRUPS AND OTHER SAMPLES.

Approved by the U. S. P. O. Dep't.

POST OFFICE DEPARTMENT.

Office of the General Superintendent of Railway Mail Service.

WASHINGTON, D. C., December 12, 1887.

POSTAL PACKAGE CO., Baltimore, Md.

SIRS—I have *carefully* examined your Package, &c. This Package conforms in ALL RESPECTS to the requirements of the Department, and is suitable for the transmission of Liquids in the mails.

Very respectfully, T. E. NASH, *General Sup't.*

Made in any Size. SEND FOR SAMPLE AND PRICE LIST.

Also Screw Top Tin Mailing Cases for Fertilizers, Flour, Grain, etc

Self Sealing Screw Top Cans.

NO EXTRA COST

For

Solder or Fuel,

AS THEY

Do Not Require

TOOL OR KNIFE

EASILY OPENED AND CLOSED.

Contents Preserved Until All is Removed.

Can be used any number of times. Top or Can not injured in opening.

Particularly Adapted For

Mixed Paints,
White Lead,
Varnish,
Printers' Ink,
Colors.

Condensed Milk,
Lard,
Vegetables,
Fruit,
Spices.

ABSOLUTELY OIL AND AIR TIGHT.

MADE IN ALL LEADING SIZES.

Sole Manufacturers and Patentees:

POSTAL PACKAGE CO., No. 34 S. PACA ST., BALTIMORE, MD.

Cultivating Insect Flowers in India.

Inquiries have lately been made by the government of India regarding the feasibility of growing on a large scale the species of pyrethrums whose dried and powdered petals furnish insect powder, and the director of the Mussoorie Gardens states, in reference to this, that a packet of seed which was received by way of exchange from a correspondent some years ago resulted in some half a dozen plants, of which, in March, 1887, one healthy and well-developed plant remained in full bloom, the others having apparently died or been crowded out by more robust growers. The condition of the plant found shows that it is quite feasible to grow the pyrethrum on the hills, but whether they can be grown on the plains as a cold season crop has yet to be ascertained by experiment. Orders have been sent to Europe and America for seed of Pyrethrum cinerariæfolium, the species the government of India particularly inquired after, and on its arrival experiments will be made.

Baltimore Imports.

Comparative statement of the Imports at the port of Baltimore, commencing January 1st, 1888 and 1887:

Articles.	This week.	Previously.	Same time '87
Agricultural salt, tons.	699	10,091	14,064
Cement, casks	...	22,030	15,055
Brims'ne & sulph'r tns	...	11,648	8,194
Guano, tons	...	4,140	5,822
Nitrate of soda, bgs	...	1,080	49,869
Spirits turp, bbls	291	12,403	21,001
Rosin, bbls	1,994	105,469	120,996
Tar, bbls	223	5,290	4,435

Baltimore Exports.

Principal articles exported from Baltimore to foreign countries since 1st of January, 1888, and compared with same time 1887:

Articles.	This week.	Previously.	Same time '87
Bark quercitron, bgs	788	20,664	28,843
Sp. turpentine, gls	...	2,000	4,000
Rosin, bbls	1,750	59,190	48,282
Oil Cake, pgs	600	80,486	118,380
Petroleum, gls	...	5,641,387	6,496,252
Tallow, lbs	...	6,572,343	13,051,321

Mr. C. Braker, Jr., who has been spending a lengthy vacation at Lake Hopatcong, N. J., and at Shelter Island, is again at his desk, looking very much improved by his relaxation.

A splendid opportunity is offered to some enterprising traveling salesmen who fill the requirements specified in the special notice from Messrs. McKesson & Robbins, to be found on another page.

Mr. F. Hasslacher, of Messrs. Roessler & Hasslacher, has just returned from Europe, looking much improved in health. He states that the published accounts of the recent sale of quinine to the Russian Government were erroneous, the quantity being 52,000 ozs. instead of 100,000 ozs., and the price 1s. 4½d. instead of 1s. 3d. The contract was awarded to the Gold and Silver brand, which Messrs. R. & H. represent in this country.

Mr. F. R. Gillespie of the firm of Messrs. Hammill & Gillespie, will sail for Europe on the Etruria next Saturday. His trip will be one of pleasure entirely, and he will be absent about a month.

This cut will be mailed to any dealer, who will use it in his paper space, to attract to same.

One agent wanted in every town.

Write for special offer. Liberal Adv't matter.

HOP REMEDIES CO., 99 & 101 Broad and 301, 303 & 305 Franklin Sts., Boston, Mass.

ROGERS & PYATT, 80 Maiden Lane, New York. Manufacturers of Bleached Shellac and Spirit Varnishes.

BOSTON MAILING BOX COMPANY.

The ONLY Wooden Mailing Case in the Market approved by the P. O. Department.

Post Office Department of the General Superintendent of Railway Mail Service. Washington, D. C., May 10, 1888.

Boston Mailing Box Co., Boston, Mass.

Gentlemen:—Your boxes meet all the requirements for transportation of liquids through the mails. They have been thoroughly tested and are entirely satisfactory.

Very respectfully,
T. E. NASH, Gen'l. Supt.

All Sizes in Stock. Prices range from 1c to 4c each.

BOSTON MAILING BOX COMPANY,

35 & 38 Central Whf., Boston.

BEESWAX.

W. H. B. White { put up in 2 ℔. parcels / in cases of 54 pounds. | **W. H. B. Refined** { in 2 ℔ cakes, in cases 100 ℔ / 1 ℔, ½ ℔, ¼ ℔, and oz. cakes.

The purity of these goods is certified to by the following eminent chemists:—S. P. Sharpless, State Assayer, Boston; J. W. Taylor, Associate of the Society of Public Analysis of Eng., Montreal, P. Q.; Edward Davis, F.C.S and F.I.C. and C., Royal Institution, Liverpool, Eng.; Bernard Dyer, D. Sc., F.C.S., F.I.C., Member of the Society of Public Analysis, 17 Great Tower Street, London, E.C., Eng.: Wm. T. Wenzel, Analyst and Assayer, San Francisco, Cal.

BEESWAX Foreign and Domestic. **OZOKERITE** in bales.
CERESINE Yellow and White. **CARNAUBA** or BRAZIL WAX,
PARAFFINE Refined, all grades. **PALM WAX** in bales.

W. H. BOWDLEAR & CO., Importers. 36 Central Wharf, Boston, Mass.

1833. 1888.

FREY'S VERMIFUGE

IN USE 50 YEARS.

THE SAME RELIABLE WORM DESTROYER,

E. & S. FREY, Baltimore, Md., U. S. A.

SOLE PROPRIETORS.

PEIRSON & PERKINS, NEWARK, WAYNE CO., N. Y., U. S. A. Manufacturers and Distillers of

Pure Essential Oils, Peppermint, Spearmint, Tanzy and Wormwood.

Awarded GOLD MEDALS at Amsterdam and New Orleans.

Correspondence Solicited for Domestic and Export Trade.

BRANDT & KIENZLER'S

Mexican VANILLA BEANS. Bourbon VANILLA BEANS.

BRANDT & KIENZLER, 160 Franklin St., N. Y

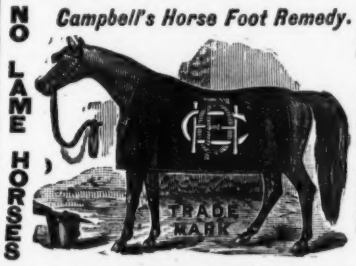
S. L. JONES. E. D. JONES. **S. L. JONES & CO.,** Liberal advances made of Consignments for Public or Private Sales.

AUCTIONEERS, COMMISSION MERCHANTS AND IMPORTERS OF CHINESE AND JAPANESE GOODS.

Buyers of Ginseng. Agent in Hong Kong, Fung Tang, Esq., 42 Bonham Strand. P. O. Box 2040. 207 & 209 California St., San Francisco

CAMPBELL'S HORSE FOOT REMEDY

Campbell's Horse Foot Remedy.



NO LAME HORSES NO BAD FEET

GUARANTEED TO DO AS REPRESENTED OR MONEY REFUNDED.

No Stable should be without a Can of

Campbell's Horse Foot Remedy.

It is a sure cure for all ailments of the feet caused by driving on hard roads, and speedily overcomes the pernicious effects of the dry summer heat, and the mud and slush of winter. It will **Prevent** as well as **Cure** Chippiness or Shellíness in Brittle Feet. Will cure Corns, Quarter Cracks and Split Hoof by promoting growth of the foot rapidly. Will make feet SOFT but TOUGH, enabling the nails to hold better without breaking. Dry, Contracted or Sore Feet are relieved immediately, and it removes all fever in Foundered Feet. It is particularly beneficial to the feet of horses where shoeing is needed often, as it grows plenty of new foot for the blacksmith to work on. For healing Cuts, Wounds, Galls, Soreness over the Kidneys and Swollen Glands in cases of Founder, or as a Liniment this Remedy can not be excelled. It is guaranteed to cure any case of Scratches in a week's time. Thrush or Foot Rot cured in three applications. None genuine without signature of

Jas. B. Campbell

JAS. B. CAMPBELL & CO., Proprietors and Manufacturers, 126 Fifth Ave., Chicago, Ills.

Correspondence Solicited.

GUM SHELLAC

ALL GRADES.

HOWE & FRENCH, - - BOSTON

VANILLA BEAN Imported by O. HOLSTEIN PHILADELPHIA.

OTTO of ROSE.

SPECIALTY OF

SHIPKOFF & CO.

MANUFACTURERS AND MERCHANTS,

(KIZANLIK, Bulgaria.)

Branch House in New York: - - - 9 Burling Slip.
" " London: 19 Ivy Lane, Newgate St., E.C.

THE OTTO OF ROSE which this house distils and exports is known above all by the absolute purity of its quality and the sweetness and strength of its odor. It is guaranteed to be the finest essence produced in the famous Rose Valley of Bulgaria.

THOMS & CO.

Manufacturers of

ROCK CANDY, ROCK CANDY SYRUP,

COLORING ETC.

813 S. Broadway, Baltimore, Md.

ALL GOODS GUARANTEED.

WHOLESALE PRICES CURRENT.

☞Our Quotations are those of Importers and Manufacturers, for original packages and large lots. For broken lots higher prices are asked.

Oils, Etc.

Vegetable Oils.

Linseed Domestic Raw, in bbls, ℔ gal	.54 @.55
Boiled, in bbls	— @.57
Calcutta, Raw, in bbls	.56 @.57
Western on spot	.52 @.53
Rapeseed, in bbls	.54 @.55
Cottonseed, Crude Prime	— @.42
Crude, off quality	.38 @.40
Yellow Summer Prime,	.48 @.50
Yellow Summer, off qual.	.46 @.47
Yellow Summer, cooking	— @—
White Summer	.49 @.50
Yellow Winter	— @.53
White Winter	— @.54
Soap stock	1½@ –
Olive, Sicily	.70 @.74
Spanish	.71 @.73
Soap Stock	— @ 5½
Palm, prime ℔ lb	4¾@ 5
Off quality	4½@ 4¾
Cocoanut, Domestic	5¼@ 5¼
Ceylon	— @ 5⅝
Cochin	6⅛@ 6¼
Castor, No. 2	— @—
No. 3	11½@12
Rosin, first run ℔ gal.	— @ 9
Second run	— @12
Third run	— @15
Deodorized	— @18

Animal and Fish Oils.

Whale, natural winter ℔ gal.	— @.41
Bleached winter	— @.43
extra bleached winter	— @.45
Bleached spring	— @.41
Sperm, natural winter	.67 @.70
Bleached winter	.72 @.74
Natural spring	.61 @.64
Bleached spring	.66 @.68
Sea elephant, bleached winter	.55 @.56
Unbleached winter	.50 @.51
Lard, prime city	.80 @.81
prime, western	.80 @.81
Extra No. 1	.57½@.70
No. 1	@.50
No. 2	.40 @.50
Menhaden, prime crude	.30 @.31
Prime southern	@—
Brown strained	— @.32
Light strained	.33 @.34
Extra bleached white	.38 @.39
Bleached winter	.36 @.37
Bank	.31 @.32
Straits	.32 @.33
Oleo	— @—
Cod, Domestic, prime	.35 @.36
Newfoundland	— @—
Black Fish, Crude	— @—
Natural	— @—
Bleached Winter	— @—
Degras, English	2½@ 2½
French	— @—
Tallow, Prime	.60 @.46
Neatsfoot, Prime	.60 @.75
No. 1	.55 @.60
No. 2	.45 @.50
Saponified Red	.38 @.40
Elaine Red	.37 @.40

Mineral Oils.

Paraffine Gas Oil ℔ gal	5½@ 6
22 gravity	.18 @.19
23½@24 gravity	.11½@12
25 gravity	.10½@11
28 gravity	8½@ 9
Red Paraffine, 21@21½ gravity	.16 @.17
22½@23 gravity	.15 @.14
High viscosity	.18 @—
Neutral filtered, 32 grav., bloomless	.18 @.20
extra cold test	.22 @.40
34 gravity, bloomless	.16 @.18
37 gravity, bloomless	.15 @.16
32 gravity, wool grade	.11 @.12
West Virginia, natural, 29 gravity	.18 @.25
Franklin, natural, 32 gravity	— @—
Smith's Ferry, 33@34 gravity	7½@ 9
Black reduced, 29 gravity, 25@30 c. t.	8 @ 9
29 gravity, 15 cold test	8½@ 9½
29 gravity, zero	.10 @.11
Summer	6½@ 7
Cylinder, light filtered	.15 @.20
dark filtered	.14 @.21
extra cold test	— @—
dark steam refined	.10 @.18

Oil Cake.

Calcutta cake, city ℔ ton	—@—
City domestic	—@23 75
Western, in bags	.23 50@23 75
Cottonseed cake at Memphis	.20 25@20 50
do do New Orleans	—@22 00

Oil Meal.

State domestic meal ℔ ton	25 00@—
Cottonseed meal at Memphis	.17 50@18 00
do do New Orleans	.22 25@—

Wax Candles, Lard, Tallow, Etc.

Paraffine wax, crude, 124@126 m p ℔ lb	4½@ 4¾
128@130 m. p	4¾@ 5
refined 136 m. p	9 @ 9½
Candles, Paraffine, 4s and 6s	9½@11
12s	.10 @12
Adamantine, 6s, 16 oz	— @ 9
14 oz	— @ 8
12 oz	— @ 7
12s, 16 oz	— @10
14 oz	— @ 9
12 oz	— @ 8
Patent sperm, 4s and 6s	.42 @43
Sperm, 4s and 6s	.32 @33
Stearic acid	.11 @13
Spermaceti	.29 @30
Lard	.10 30@12 00
Stearine	.10¼@12¼
Tallow	5¼@ 5⅝

Naval Stores.

Sp. tur'tine	41¾@42	I	1 40@—
St'd rosin	—@1 00	K	1 55@—
G'd st'd	1 05 @—	M	1 65 @—
E	1 12½@—	N	2 00 @2 10
F	1 17½@—	W G	2 75 @—
G	1[illegible] @—	W W	3 10 @3 20
H	1 27½@—		

Paints, Varnishes, Etc

White Lead, Zinc, Etc.

American Dry White Lead ℔ lb	6¾@7
Pure White Lead, in oil	7 @7½
English White Lead, in oil	8½@8¾
Zinc White, Paris, G S, 50 bbls	7½ less 4 ℔ ct
G S, 25 bbls	7½ 2 ℔ ct
G S, 10 bbls	7½ 1 ℔ ct
R S, 50 bbls	6½ 4 ℔ ct
R S, 25 bbls	6½ 2 ℔ ct
R S, 10 bbls	6½ 1 ℔ ct
Antwerp R S, 50 bbls	5⅞ 4 ℔ ct
R S, 25 bbls	5⅞ 2 ℔ ct
R S, 10 bbls	5⅞ 1 ℔ ct
V M Co., grinding in poppy oil, Green Seal	10½@10⅝
Grinding in poppy oil, Red Seal	8¾@ 9¼
French in Varnish	.16 @.20
American Extra Dry	4¼@ 4½
Off color	4 @ 4⅛
In oil	6¼@6¾
In varnish	.14 @.18¾
L. Z. O. German zinc	5¾@ 5
China white	.10½@.12
Flake white	.10½@.12
Cremnitz white	.15 @.20

Dry Colors.

REDS

Carmine No. 40 ℔ lb	3 15@ 3 50
Crocus martus, imported	1½@ 2¼
Standard American	1½@ 2½
Colcothar	3½@ 6
Indian red, American	3½@ 6½
Standard American	2 @ 3
English	5½@ 7
Tuscan red, English	9½@ 11
Turkey red, English	9½@ 14
Litharge, English flake	9 @ 9½
American powdered	6½@ 6¾
Red lead, English	8½@ 9
American	6¾@ 7
Orange mineral, English	8½@ 9½
French	9½@ 9¾
German	8½@ 9½
American	8 @ 8½
Rose pink, English	9 @ 9½
American	8 @—
Vermilion, imported English	.82 @ 85
Am. quicksilver, bulk	.60 @—
Am. quicksilver, bags	.61 @—
Chinese	— @ 77½
Trieste	.72 @ 77
American	10½@ 11
Artificial	8 @ 25
Venetian red, Cookson's	1 40 @1 45
H. R. Co's Diam'd M1	.45 @1 50
Diam'd H.1	.10 @1 25
F V A	1 05 @1 20
L L & Co Diamond H.1	.10 @1 20
H B.1	.10 @1 20
Bell brand	— @1 45
B O W	— @1 30
V V R	— @1 60
Crown	1 40 @1 50
Lion	1 20 @1 25
Anchor H	1 10 @1 30
American	1 00 @1 30
Cutter	1 30 @1 35

YELLOWS.

Chrome yellow	.10 @ 25
Ocher, Rochelle	1 35 @1 50
Washed Dutch	5 @—
Washed French	2 @—
Washed Nat Oxford, Lump	6½@ 6¾
Washed Nat Oxford, Powd'r	7 @ 7½
Golden	3½@ 4
Domestic	¾@ 1½
Domestic, for O C & W P	⅝@ 1

GREENS.

Chrome, Chemically pure	.22 @28
Extra	.12 @13
Super	.9 @11½
Common	— @ 8
Paris, Pure	— @18¾
In pulp	.11 @12
French Verdigris	.40 @42

BLUES.

Chinese Blue	.45 @50
Prussian Blue	.30 @35
Soluble Blue	.45 @55
Ultramarine Blue	7 @25
Celestial Blue	5½@ 8
Blue verditer	.25 @30
refiners'	.60 @70

BROWNS.

Sienna, Italian, burnt & powdered	6 @ 6½
burnt lumps	3 @ 3½
raw powdered	6 @ 7
raw lumps	3½@ 4
American, burnt & powdered	1½@ 1¾
raw	1½@ 1¾
Umber, Turkey, burnt and powdered	3½@ 4
burnt lumps	2½@ 3
raw and powdered	3½@ 4
raw lumps	1½@ 2¾
American, burnt	1½@ 1½
raw	1½@ 1½
Vandyke brown, English	6 @ 8
American	3 @ 3¾
Spanish brown	¾@ 1

Miscellaneous.

Barytes, prime white ℔ ton	16 00 @18 00
foreign floated	19 00 @21 00
domestic floated P & K	30 00 @32 00
off color	12 50 @14 00
Chalk	— @ 3 00
kiln dried ℔ 100 lbs	45 @—
air dried	30 @ 35
China clay ℔ ton	13 00 @18 50
Cobalt oxide	2 50 @ 2 90
Feldspar ℔ ton	15 00 @—
Silex	14 00 @25 00
Whiting, commercial ℔ 100 lbs	50 @ 55
gilders'	65 @ 70
Paris white, English cliffstone	1 05 @1 15
American	65 @ 80
French talc	1¼@ 1½
terra alba	⅞ @ 1
English terra alba	85 @ 90
Blanc fix ℔ lb	2½@ 3
Dentists' plaster ℔ bbl	1 35 @1 55
Calcined plaster ℔ bbl	1 25 @1 50
Marble dust ℔ bbl	90 @1 00
Pumice stone, original cks ℔ lb	1½@ 2
selected lumps in bbls	3½@ —
powdered pure in bbls	2½@ 2½
Rotten stone original cks	4½@ 5½
selected lumps	6 @ 10
powdered, in bbls	3½@ 3½
Rubbing stone	5 @—
Bronze powder	— @—
Brocades	45 @1 00
Smalt, German blue	15 @—
super black	— @—
Putty bulk	1½@ 2½
bladders	2 @ 2½
tins	— @ 2½

Glues.

Extra white ℔ lb	.17 @20
Medium white	.13 @15
Cabinet	.12 @14
Low grade	8 @10
Foot stock, white	9½@13½
brown	4 @ 8
Irish	12½@14½
French	9½@22½
English	10½@15

Metallic Paints.

Brown ℔ ton	$27 50@32 50
Red	27 50@32 50
Yellow	27 50@32 50

Colors in Oil.

Black coach, Japan ℔ lb	.18½@20
in oil	.12 @13
Drop black	8½@14½
Ivory black	8½@14½
Lamp black	.12 @20
Chinese blue	.35 @40
Prussian blue	.20 @45
Ultramarine blue	.12 @18
Burnt sienna	7 @14
Raw sienna	7 @14
Burnt umber	7 @11
Raw umber	7 @11
Vandyke brown	7 @12½
Chrome green	8 @14
Paris green	.16 @18½
English drop black	.12½@14
American drop black	7½@10
Erankfort drop black	.25 @30
Lampblack, prime	.27½@33
medium	.19½@26
2d quality	.13 @19
low grade	6½@10
Naphtha, black	.60 @—
Fine calcined velvet black	.16 @25
Medium calcined velvet black	.12 @15

Varnish Gums.

Copal, Sierra Leone, cleaned	.35 @40
Zanzibar, bold white	.72 @75
medium white	.62 @65
bean and pea	.35 @45
Manila, pale	.17 @20
bright amber	.13 @15
standard	8 @10
Damar, Batavia	.19 @21
Kauri, standard	.13 @16
No. 2	.12 @14
hard scraped	— @22
light hard scraped	.26 @28
picture quality	.65 @70
pale and fine selected	.42 @65
Sandrac	.17½@20
Asphaltum, Cuban, prime	4½@ 5½
sandy	4 @ 5
Egyptian	8 @ 9

Glass.

PLATE AND WINDOW.

FRENCH SINGLE.

Prices per Fifty Feet.

Sizes.	1st.	2d.	3d.	4th.
6x 8 to 10x15	$10 50	$ 9 00	$ 8 50	$ 8 00
11x14 to 16x24	11 50	10 75	10 25	9 75
18x22 to 20x30	15 50	14 00	13 00	12 50
15x36 to 24x30	16 50	15 00	13 50	....
24x36 to 24x36	17 75	16 20	14 75	....
26x28 to 24x36	26 00	25 00	23 00	....
26x36 to 26x44	19 00	17 50	15 25	....
26x46 to 30x50	21 00	19 50	17 00	....
30x52 to 30x54	22 00	20 25	18 00	....
30x56 to 34x56	23 00	21 25	19 00	....
34x58 to 34x60	24 00	22 75	21 00	....
36x60 to 40x60	26 50	24 50	23 00	....

FRENCH DOUBLE.

Prices per Fifty Feet.

Sizes.	1st.	2d.	3d.	4th.
6x 8 to 10x15	$13 00	$12 50	$12 00	$11 50
11x14 to 16x24	16 00	15 00	14 50	....
18x22 to 20x30	20 50	19 50	18 50	....
15x36 to 24x30	22 00	20 75	19 50	....
26x28 to 24x36	25 00	23 00	21 50	....
26x46 to 30x50	28 00	26 50	24 50	....
30x52 to 30x54	30 00	28 00	26 00	....
30x56 to 30x56	31 00	30 00	28 00	....
34x58 to 34x60	32 50	31 00	29 00	....
36x60 to 40x60	36 00	33 50	32 00	....

Discounts:—70 10 & 5 for S & D.

AMERICAN SINGLE.

Sizes.	1st.	2d.	3d.	4th.
6x 8 to 10x15	$10 50	$ 9 00	$ 8 50	$ 8 00
11x14 to 16x24	11 50	10 75	10 25	9 75
18x22 to 20x30	15 50	14 00	13 00	12 50
15x36 to 24x30	16 50	15 00	13 50	....
26x28 to 24x36	17 75	16 25	14 75	....
26x36 to 26x44	19 00	17 50	15 25	....
26x46 to 30x50	21 00	19 50	17 00	....
30x52 to 30x54	22 00	20 25	18 00	....
30x56 to 34x56	23 00	21 25	19 00	....
34x58 to 34x60	24 00	22 75	21 00	....
36x60 to 40x60	26 50	24 50	23 00	....

AMERICAN DOUBLE.

Sizes.	1st.	2d.	3d.	4th.
6x 8 to 10x55	$13 00	$12 50	$11 00	$10 00
11x14 to 16x24	16 00	15 00	13 50	12 00
18x22 to 20x30	20 50	19 50	18 00	....
15x36 to 24x30	22 00	20 75	18 75	....
26x28 to 24x36	25 00	23 00	21 00	....
26x36 to 26x44	26 00	25 00	22 50	....
26x46 to 30x50	28 00	26 50	23 75	....
30x52 to 30x54	30 00	28 00	25 25	....
30x56 to 34x56	31 00	30 00	27 00	....
34x58 to 34x60	32 50	31 00	28 00	....
36x60 to 40x60	36 00	33 50	30 00	....

Discounts:—75&5@75&10.

Drugs.

Opium.

Opium, in bond ℔ lb	1 95 @2 00
duty paid (cases)	2 95 @3 00
as wanted	3 00 @3 25
powdered	4 10 @4 25
Morphine	2 25 @2 55
foreign	2 10 @2 30

Quinine.

Quinine, American ℔ oz.	43 @ 50
English	— @—
French	— @—
German	35 @ 45
Cinchonidia, American	4 @ 5
foreign	2½@ 3
Quinidia, German	16 @ 20

Miscellaneous.

Acid benzoic, German ℔ lb	42½@ 55
English ℔ oz.	11½@ 13
boracic purified ℔ lb	20 @
refined	15 @
flaky	14 @
carbolic, pure crystals	29 @ 35
Acid carbolic commercial	25 @ 30
citric, domestic	50 @ —
foreign	50 @ 51
salicylic, bulk & boxes	1 56 @ 1 62
Alcohol, 94 p ct, free per gal.	2 16 @ 2 20
refi'd wood, 95 p ct	— @ 1 10
92 p ct	— @ 1 05
dia methyl, 98 p ct	1 25 @ 1 30
Inodorine, 97-99 p ct	1 50 @ 1 60
Cologne spirits, 188 p t	2 27 @ 2 30
Ambergris gray	22 00 @30 00
black	9 00 @12 00
Ammonia carb, foreign	7½@ 8
domestic	8 @ 8¼
Bay rum imp, bulk	1 95 @ 2 00
Barbadoes tar	38 @ 40
Borax, refined city, bbls ℔ lb	8½@ 8⅝
Cal., bbls	8½@ 8¾
concentrated	7¾@ 7¾
powdered	8½@ 9
Bromine	37 @
Burgundy pitch	2¾@
Cantharides, Russian	1 32½@ 1 37
Chinese	37½@ 45
Calomel, domestic	65 @ 67
English	1 05 @ 1 10
Castile soap, white	10¾@ 10⅞
green, pure	6¼@6¾
mottled ordinary	4½@ 4¾
pure	5¼@ 5¾
Chian turpentine ℔ oz.	45 @—
Chloroform	40 @ 45
Colocynth apples, Trieste ℔ lb.	46 @ 50
pressed	— @—
Spanish	24 @ 27
Cacao butter	39 @ 40
Chloral hydrate, crystals	1 55 @—
plates	1 25 @—
Corrosive sublimate	57 @ 59
Cuttlefish bone, Trieste	21 @ 23
Dragon's blood mass	20 @ 22
reed	42 @ 45
Ergot, Spanish	24 @ 26
German	17 @ 20
Gelatine, English	50 @ 60
French	30 @
American	85 @—
Glucose	2¾@ 3¼
Grape sugar	2¼@ 3
Glycerine, German, dms	17 @ 19
H. L. & Co., bbls & cs	17 @ 19
W. J. M. G., bbls & cs	17 @ 19
A. G. Co. C. P., bbls & cs	17 @ 19
No. 1, pure white	16 @ 17¼
M.W & Co. C. P., bbls & cans	17 @ 19
P. W., bbls & cs	16 @ 17¼
C. G. Co., bbls & cs	17 @ 19
M. & R., bbls & cs	17 @ 19
Glycerine, crude	11½@ 12
Guarana, whole	1 02½@ 1 05
Powdered	1 10 @ 1 15
Iceland moss	4½@
Indian hemp (Canabis In)	7 @ 12
Insect powder	47½@ 55
B. W. B	— @ 55
Irish moss	5 @ 10
Isinglass, Russian	3 50 @4 75
American ordinary	70 @ 75
prime	90 @1 50
Iodine, re-sublimed	3 50 @—
Licorice Corigliana	29 @—
Guzzolini	26 @—
Guis Grasso	24 @ 26
"P. & S."	28 @ 29
Domestic	20 @
Paste	13 @
Lupulin, American ℔ lb	70 @—
German	50 @—
Lycopodium, prime	38½@ 40
Manna, large flake	70 @ 72½
Small flake	35 @ 37½
Sorts	30 @ 35
Menthol	1 50 @2 00
Musk, true grain ℔ oz	38 00 @40 00
Tonquin pods	25 00 @26 00
Canton grains	20 @1 00
Nitrate barium ℔ lb	8 @ 8½
Strontia ℔ lb	9½@ 10
Nux vomica, pockets ℔ lb	3½@ 3¾
Oil, almond, sweet	20 @ 37
Myrbane, American	16 @ 18
English	16 @ 18
German	— @—
Sesame ℔ bbl	70 @ 75
Castor, city, bbls & cases	12½@ 13½
Cod liver Norwegian ℔ bbl	22 50 @28 00
Newf'land ℔ gal.	65 @ 70
Phosphorus ℔ lb	70 @ 75
Precip, red	75 @ 77
White	80 @ 82
Precipitated chalk, Eng. bk	5 @—
bbls	7 @—
Potassium, bromide, bulk	34 @—
glass	42 @ 43
Iodide, bulk	2 70 @2 75
glass	2 78 @2 85
Quicksilver	60 @ 65
Sago, pearl	3½@ 3¾
Flour	3½@ 4
Sugar of milk cob	16½@ 17
Powdered	17 @ 18
Sulphur, roll	— @ 3½
Flour	— @ 2
Salicine	2 20 @2 25
Tamarinds ℔ lb	— @—
Venice turpentine ℔ lb	18 @ 20
Wax, brown southern	26 @ 27
State	25 @ 26
Brazil	12½@ 15
White, pure	40 @ 45
Japan	12½@ 13
Carnauba	10 @ 16
Ceresin	10½@ 11

Balsams.

Copaiba, Angostura ℔ lb	— @67½
Para	— @64
Central	55 @60
Fir, Canada ℔ gal	2 55 @—
Oregon	90 @1
Peru ℔ lb	1 02½@1 0
Tolu	— @40

Barks.

Angostura	℔	18 @	20
Bayberry		7 @	8
Buckthorn		8 @	12
Cascarilla		9 @	10
Canella		12 @	12½
Cinchona, red		20 @	1 45
yellow		12 @	1 25
Coto		60 @	65
Elm, common		9 @	10
selected		12 @	
Loxa		30 @	32
Oak, white		3½@	4
red		3½@	4
Orange peel, West Indian		4 @	6
Malaga, prime		7 @	10
Curacoa		7½@	15
Prickly ash		10 @	12
Pomegranate (of root)		— @	20
Quebracho		12 @	15
Sassafras		8 @	8½
Simaruba		14 @	20
Soap, whole		5 @	6
crushed		6½@	6¾

Beans.

Vanilla, Mexican	℔	2 50 @	9 00
Bourbon		2 50 @	8 00
Tonka, Angostura		1 30 @	1 40
Surinams		80 @	90
Para		— @	45
Calabar		22 @	25
St. Ignatius		50 @	55

Berries.

Cubeb	℔	1 50 @	1 75
Juniper		4½@	5
Fish (Cocculus Ind)		4 @	4½
Laurel		5 @	—
Prickly ash		20 @	

Essential Oils.

Anise	℔	1 55 @	1 57½
Almond (bitter)		2 50 @	6 75
Bay, ℔ bottle of 22 ozs		6 00 @	6 50
Bay oil, ℔		3 62½@	4 73
Bergamot		2 25 @	2 70
Black pepper		65 @	5 50
Cajeput		67½@	70
Camphor		7½@	11
Caraway, seed		1 95 @	1 50
chaff		40 @	52½
Cassia		70 @	72½
Citronella		33 @	35
Clove		1 40 @	1 50
Copaiba		— @	60
Croton		95 @	1 00
Cubebs		14 00 @	14 50
Cumin, American		3 50 @	5 50
Fennel		85 @	—
seed		1 50 @	—
Geranium, Turkish		3 00 @	3 50
rose, French		8 00 @	9 50
Gingergrass		2 25 @	—
Juniper, once rect		— @	1 10
twice rect		1 75 @	2 10
wood		27 @	37
Lavender, garden		70 @	85
flowers		2 00 @	2 25
Lemon		1 15 @	1 70
Lemongrass		65 @	67½
Neroli, bigarade		40 00 @	45 00
Portugal		27 50 @	—
Petale		50 00 @	—
Nutmeg		2 10 @	2 35
Orange, sweet		1 15 @	1 60
bitter		1 65 @	4 00
Origanum		18 @	25
Peppermint, tin cans		2 30 @	2 50
cases		3 25 @	50
A. M. T. crystal white tins		2 40 @	55
cases		3 00 @	—
Pennyroyal		90 @	1 00
Rose		4 65 @	4 75
Shipkoff's	℔ oz	5 10 @	5 50
Ihmsen's	℔ oz	5 00 @	5 25
Holstein's		4 75 @	5 00
Rosemary, Trieste	℔	47½@	—
French		— @	35
Flowers		70 @	1 10
Sandalwood		2 25 @10	50
Sassafras		60 @	65
Spearmint		2 00 @	2 75
Tanzy		2 95 @	3 50
Thyme, red		21 @	82½
white		30 @	1 10
Wintergreen		1 90 @	1 95
Wormseed		1 50 @	—
Wormwood		4 50 @	5 00

Flowers.

Arnica	℔	8 @	9
Chamomile, German		18 @	25
Roman (new)		30 @	32½
Insect		45 @	55
Lavender		3 @	7
Rosemary		15 @	20
Saffron, American		18 @	20
Alicante		— @	10 00
Valencia		15 00 @	16 00

Gums.

Aloes, Cape	℔	5½@	7
Barbadoes		19 @	25
Curacoa		4 @	6
Socotrine		40 @	52
Arabic, 1st picked		84½@	97
2d picked		74½@	77
3d picked		64½@	67
4th picked		54½@	57
Sorts		52 @	70
Siftings		25 @	40
Senegal, picked		52 @	54
sorts		34 @	40
Asafœtida		8½@	10
Benzoin		25 @	40
Camphor, refined, in bbls		24 @	24½
in cases		25 @	25½
Chicle		25 @	26
Euphorbium		15 @	17
Gamboge, pipe and block		57½@	65
Gedda, siftings		— @	—
sorts		22 @	25
Guaiac		24 @	28
Kino		11 @	12
Mastic		82½@	85
Myrrh		30 @	32
Olibanum, tears		15 @	18
sorts		6½@	7½
Sandrac		17 @	20
Scammony, Aleppo		25 @2	50
Virgin		7 50 @	—
Tragacanth, Aleppo, 1st flake		41 @	43
2d flake		35 @	38
3d flake		30 @	32
Turkey, 1st flake		70 @	75
2d flake		55 @	57½
3d flake		40 @	45

Herbs and Leaves.

Aconite	℔	9 @	11
Althea		8 @	10
Belladonna		12 @	15
Buchu, short		6½@	8
long		20 @	25
Coca		25 @	32
Damiana		25 @	28
Digitalis		6 @	9
Eucalyptus		4 @	5½
Grindelia robusta		12 @	14
Henbane (hyosciamus)		12 @	14
Horehound		6 @	8
Jaborandi		25 @	27
Laurel		3½@	4
Lobelia		4 @	7
Matico		20 @	22
Marjoram, German		14 @	20
French		9 @	11
Prince's pine		— @	8
Rose, red		95 @1	00
pale		40 @	55
Rosemary		3 @	4
Sage, Italian		2¼@	2½
Senna, Alex. nat		24 @	25
siftings		19 @	21
garbled and sifted		34 @	35
Tinnivelly		12 @	25
Thyme		4½@	10
Uva Ursi		4 @	4½
Yerba Santa		12 @	14

Roots.

Aconite	℔	10 @	12
Alkanet		7½@	9
Althea, whole		12 @	12½
cut		14 @	16
Angelica, German		10 @	12
American		9 @	10
Arrowroot, Bermuda		31 @	35
St. Vincent, bbls &cns		10 @	15
Jamaica		10 @	11
Arnica		7½@	8
Belladonna		8 @	12
Blood		10 @	12
Burdock		7½@	8
Calamus, bleached		— @	40
unble'd, split & peeled		19 @	24
Canada snake, select		34 @	38
Colchicum		— @	10
Colombo		8 @	11
Culvers		15 @	16
Dandelion, German		10 @	12
American cut		11 @	12
Elecampane		6 @	8
Galangal		3 @	3½
Gentian		4½@	5
Ginseng	1	75 @2	15
Ginger, Jamaica, unbleached		13 @	14
American, bleached		15 @	16
Lonaon, bleached		15 @	16
Golden seal		40 @	42
Hellebore, white, powdered		9 @	9½
whole		5½@	6
Ipecac, Rio	1	65 @1	75
Jalap		11½@	12
Kava Kava		18 @	20
Lady slipper		12 @	15
Lovage, American		40 @	50
German		9 @	20
Licorice, ordinary		5 @	7
selected, in bdls		12½@	20
Mandrake		— @	5
Orris, Florentine		13 @	16
finger		48 @	75
Verona		6 @	6½
Pareira brava		20 @	25
Pellitory		16 @	18
Pink		25 @	30
Rhatany		5 @	8
Rhubarb, whole		20 @	70
cut		60 @1	50
Sarsaparilla, Honduras		20 @	30
Mexican		7½@	8
American		6 @	—
Senega, Southern		38 @	40
Western		— @	50
Serpentaria, Texas		17 @	19
Stillingia		8 @	10
Squills, ordinary		— @	9
white, prime		8 @	9
Valerian, German		10 @	11
Belgian		7 @	9
English		— @	17
Vermont		10 @	11
Yellow dock		7 @	9

Seeds.

Anise, Italian	℔	8½@	10½
German		— @	—
star		25 @	26
Canary, Sicily		2½@	3
Smyrna		2½@	2¾
Spanish		2¾@	3
Caraway, Dutch		6 @	6½
German		— @	—
Cardamom, Alleppy		45 @	80
Malabar		65 @	85
Mangalore		60 @ 1	50
Celery		11½@	12
Colchicum		38 @	40
Clover		9 @	11
Coriander, English		4½@	5
French		4½@	5
German		4 @	4½
Cummin		12½@	13
Fennel, German		7 @	8
Fœnugreek		2¼@	3
Guinea grains		7½@	7¾
Hemp, Russian		2¾@	3
Smyrna		— @	—
Lobelia		25 @	30
Millet, domestic	℔ bush.	1 10 @	—
foreign	℔	2½@	2½
Mustard, California yellow		3½@	3⅞
brown		4¾@	5
Dutch		3¾@	4
English		4½@	5
Trieste brown		5½@	7
Poppy		5 @	5½
Quince, German		55 @	60
Russian		28 @	30
Rape, domestic		3½@	4
English		4 @	
German		3½@	4
Timothy		2¼@	2½

Shellac.

D. C	℔	24 @	24½
Octagon B		17 @	18
V. S. O		18 @	19
Diamond I		17 @	18
S. S		15½@	16
Garnet, A C		10½@	11½
T. N. quality		13 @	16
Natives		12 @	13
Button		16 @	18
Bleached		20 @	21

Spices.

Cassia, Batavia	℔	1½@	7
China		4½@	4¾
Saigon, rolls		32 @	35
broken		25 @	28
chips		6 @	8
buds		9¾@	—
Cloves, prime, Zanzibar		17 @	17½
Amboyna		27 @	28
stems		4½@	4½
Ginger, African		3½@	4
Calcutta		@	3¼
Cochin		⅝ @	10
Mace, Batavia		60 @	—
Banda		65 @	—
Penang		65 @	—
Nutmegs, 110's		56 @	57
Pepper, Singapore		15¾@	16
West Coast		b¼@	15½
Acheen, prime		14¾@	15½
Penang, white		@	23¼
Singapore, white		25½@	26
red, Zanzibar		10 @	10¼
Bombay		— @	6¼
Pimento, prime		— @	7½

Chemicals.

Heavy Chemicals.

Alkali, 36 ℔ cent	1	12½@	1 15
refined, high test	1	15 @	1 25
Bleach, over 35 ℔ cent	2	00 @	2 15
Saltcake		50 @	57½
Soda ash, carb, 48 per cent	1	27½@	1 37½
high test	1	12½@	1 15
Caustic, 48 ℔ cent	1	25 @	1 30
Soda ash, caustic high test	1	12½@	1 15
Newcastle, 48 per cent	1	25 @	1 37½
high test	1	15 @	1 20
Soda bicarb, English	3	10 @	3 35
American	3	00 @	3 50
carbonate	1	75 @	1 80
caustic, 60 ℔ cent	2	47½@	2 87½
70 ℔ cent	2	32½@	2 50
74 ℔ cent	2	30 @	2 45
76 ℔ cent	2	70 @	2 75
sal, English		90 @	97½
American		95 @	1 20

Acids.

Acid, acetic		2¼@	2½
chemically pure		16 @	17
pure		5½@	8½
oxalic		8 @	9
sulphuric, 60 deg		90 @	95
66 deg		95 @1	25
muriatic, 18 deg	1	15 @1	20
20 deg	1	30 @1	50
22 deg	1	40 @1	80
nitric, 36 deg		4 @	5½
38 deg		4½@	6
40 deg		5 @	6½
42 deg		5½@	7
tartaric, crystals		43 @	44
powdered		44 @	45

Ammonias, Potashes and Fertilizing Chemicals.

Ashes, pot, 1st sorts	℔	4 @	4¼
pearl		5 @	5¼
Potash, chlorate, English		14¼@	14½
powdered		14½@	14¾
carb		4 70 @	5½
caustic		7½@	8
cyanide, fused		39 @	40
double manuring salt	1	17½@	1 20
sulphate of, 90 to 98%	2	25 @	2 35
Aqua ammonia (in cbys) 16%	℔	3¼@	3¾
18%		— @	4¾
20%		— @	6
22%		6 @	7
26%		10 @	11
Ammonia, muriate		6¼@	8
sal	3	17½@	3 20
sulphate	3	10 @	3 15
AMMONIAS, ETC.:			
Azotine, ℔ unit		2 30 @	2 35
Blood, dried, red, ℔ unit, west		2 40 @	2 45
low grade, ℔ unit		2 35 @	3 75
Bones, rough, ℔ ton		16 00 @	20 00
ground, ℔ ton		20 00 @	25 00
Bone black, refuse, ℔ ton		18 50 @	19 00
Kieserite		5 75 @	6 25
Menhaden guano		25 00 @	36 00
Phosphate rock, f. o. b. Charleston		5 60 @	6 00
Phosphate rock, ground		10 00 @	10 50
Acid phosphate, 14% per unit		75 @	80
Potash muriate, ℔ 100 lb		1 80 @	1 85
23% S. of P. Kainit, ℔ ton		9 50 @	10 30
Manure Salts, 27@28% S. of P., per gross ton, in bags		— @	12 00

Miscellaneous.

Acetate of lime, gray	2	25 @	2 30
brown	1	15 @	1 20
Alum, lump		1¾@	1⅞
ground		1¾@	2
Cake		1¾@	1¾
Argols, crude Oporto		— @	—
plate		23 @	24
half refined		28 @	32
Arsenic, white		3 @	3½
red		5½@	5¾
Brimstone crude, best 2ds	20	00 @	23 00
3ds	19	50 @	21 00
Copperas, ordinary		— @	62½
best grades		75 @	1 00
powdered		1½@	1¼
Cream tartar, crystals, 99 p. c		32 @	32¾
powdered, 99 p. c		32¾@	33½
Glauber salts		75 @	80
Epsom salts	1	15 @	1 20
Nitrate of lead		9 @	10
soda	2	17½@	2 20
Rochelle salts		28 @	30
Sugar lead, brown		7½@	8
white		13 @	13½
Saltpeter, crude		5 @	5½
refined		6 @	8
Vitriol, blue ordinary		6 @	6¼
extra		6¼@	6¾

Dyestuffs.

Acid picric best crystals	℔	50 @	55
Albumen prime egg		60 @	65
imported blood		16 @	16½
domestic blood		15 @	16
No. 1½ blood		— @	—
Alizarine		18 @	20½
Annatto		12 @	25
seed		10 @	16
Archil weed		7 @	15
Aurine		58 @	—
Barbary root, cut		4 @	—
Bichromate of potash, Scotch		10½@	11
American		10½@	11
Bichromate of soda		8½@	—
Carmine of indigo		40 @	—
Cochineal, Teneriffe silver		30 @	32
black		30 @	32
gray black		33 @	35
Mexican		— @	—
ammoniac		— @	37
Cudbear, French		2 @	—
concentrated		25 @	—
English		12 @	30
Cutch, slab		7½@	8
bag		5½@	6
Dextrine		5½@	6
Divi divi	℔ ton	40 00 @	50 00
Fullers earth, lump	℔	90 @	95
powdered		1¾@	2
Flavine		21 @	23
Fustic stick	℔ ton	23 00 @	25 00
Gambier	℔	7@	5½
Garancine		8½@	9
Indigo, Bengal, low grade		78 @	85
medium	1	10 @	1 25
high grade	1	25 @	1 40
Caracas		— @	—
Kurpahs		75 @	1 05
Gautemalas		70 @	80
Manila		70 @	75
Madras		65 @	85
Indigotine	3	00 @	4 00
Lac dye		9 @	15
Logwood stick	℔ ton	35 00 @	40 00
Madder, Dutch	℔	7½@	8
French		5 @	7
Myrobalans		2 @	2½
Muriate of tin		10 @	15
Nitrate of iron, commercial		2 @	3
true		5 @	6
Nutgalls, blue Alleppo		15½@	16
Chinese		16 @	16½
Oxymuriate of antimony		4 @	6
Persian berries		15 @	17
Prussiate of potash, Am. yellow		— @	19
red		42 @	45
Scotch yel.		19 @	20
red		42 @	45
Prussiate of soda		17½@	18
Phosphate of soda		7 @	8
Safflower		— @	—
Sago flour		3½@	3¾
Salts of tartar		6½@	7
Soluble oil		— @	6
Sumac, Sicily prime	℔ ton	57 00 @	70 00
Virginia		37½@	42½
Starch, corn	℔	2½@	3½
potato		4½@	4¾
wheat		5½@	6
Stannate of soda, 50% soluble		— @	15
Stannate of soda, 40% soluble		— @	12
25% soluble		— @	9
20% soluble		— @	8
Tin crystals		18½@	20
Turmeric root, Alleppy		3 @	3½
Bengal		— @	—
Corringa		3 @	3¼
powdered		5 @	6
Ultramarine, imported		20 @	30
American		5 @	16
Vanadiate, ammonium		90 @ 1	00
Woad, English		9 @	10

COAL TAR COLORS:

Alizarine		19 @	20
Aniline oil		20 @	25
salt, crystals		16 @	18
cake		20 @	21
Bismarck brown		80 @ 1	20
Eosine	2	40 @ 3	00
Fast red		50 @	65
Fast yellow—acid		75 @ 1	50
Fuchsine crystals	1	25 @ 1	75
Hoffman's violet—3B	1	75 @ 2	50
Methylene blues	4	50 @ 6	75
Methyl violets—2R	1	50 @ 2	00
2B	1	50 @ 2	00
B	1	50 @ 2	00
Nicholson (alkali) blue—3B	2	25 @ 3	00
5B	3	75 @ 4	00
Red shade	2	00 @ 2	25
Nigrosine	1	35 @ 2	00
Orange A—II		40 @	65
Safranine	1	75 @ 2	25
Scarlet R		45 @	55
RR		50 @	65
RRR		70 @	75
Soluble blue—green shade	2	00 @ 3	50

These prices are for colors of standard purity in original packages. Reduced colors can be obtained at irregular and very much reduced figures.

CHIPPED DYEWOODS, ETC.:

Barwood	℔	1¾@	2¼
Camwood		4½@	8
Fustic, com		1¾@	1½
Cuban		1½@	1⅝
Green ebony		3½@	4
Hypernic		3½@	4¼
Logwood, Campeachy		2 @	2¼
Laguna		2 @	2½
Nicwood		2 @	3
Peachwood		3½@	3¾
Quercitron		1½@	—
Redwood		2 @	3
Red sanders		— @	3

EXTRACTS:

Archil	℔	— @	33½
concentrated		21 @	—
Black oak		23½ @	23¾
Barberry, French		26 @	30
Chestnut		5½@	—
Chestnut oak		3½@	—
Refi'd sedimentless hemlock		4½@	6
Prime hemlock		3½@	4
Fustic, solid		10½@	—
liquid, 51 deg		8 @	—
Indigo extract		7¾@	—
Logwood, solid		10 @	11
liquid, 51 deg		6½@	7
42 deg		5½@	5¾
Persian berries, French		22 @	—

COMPARATIVE PRICES.

CHEMICALS.	1887.	1886.	1885.
Bleaching powder	1 95	1 80	1 60
Caustic soda, 70%	2 37½	2 50	2 60
Caustic soda, 60%	2 37½	2 60	2 80
Sal soda	1 00	85	1 05
Soda ash, 48% carb	1 20	1 25	1 40
Soda ash, 48% caustic	1 17½	1 25	1 35
Soda ash, 48-53% N. C	1 10	1 17½	1 30
Soda alkali, 58% B. M	1 20	1 20	1 40
Soda nitrate	1 90	2 00	2 35
Brimstone	$20 00	$20 50	$22 00
Cream tartar	34¼	34¼	33¾
Muriate of potash	1 70	1 70	1 67½
Chlorate of potash	15	16⅛	22
Kainit	7 25	7 25	7 10½
PAINTS.			
White lead in oil	6¼	7	6¼
Litharge	5½	5½	5
Paris green	18	16	16
Orange mineral	7¾	7¾	8½
Ven. red, English	1 40	1 40	1 40
Ven. red, American	1 00	1 00	1 25
Barytes	$16 00	$18 50	$16 00
Whiting, Commercial	45	35	40
DRUGS.			
Opium	$4 40	$2 85	$3 40
Morphine, domestic	3 10	1 80	3 00
Quinine, German	38	48	68
Quinine, domestic	40	50	68
Cinchonidia, domestic	8	8	14
Alcohol	2 03	2 14	2 12
Borax, city	6¼	6¼	7⅞
Beans, tonka (Ang)	1 35	1 55	1 50
Cubebs	1 00	80	75
Cuttlefish	19½	12½	14
Glycerine, American	19½	15½	15
Oil, castor, city	cs.	17	17
Oil, codliver, Nor	27 00	25 00	34 00
Quicksilver	53	54	43
Oil, bergamot	2 37½	1 90	1 70
Oil, cassia	60	c2½	80
Oil, cubebs	10 00	8 00	6 50
Oil, lemon	1 15	1 20½	80
Oil, peppermint, tins	2 00	2 75	3 60
Oil, sassafras	43	35	38
Aloes, cape	5¾	7	8½
Asafœtida	9	11½	13
Gum arabic, 1st picked	92½	82½	50
Gum aribic, sorts	57½	39	27
Camphor, bbls	22¼	23	22
Shellac, D C	19	20	15½
Senna, Alex. Nat	29	30	11½
Gentian root	3¾	4¼	4¾
Ipecac	1 20	82½	82½
Canary seed, Smyrna	2½	2⅝	2¾
Caraway seed, Dutch	6¾	7½	11
Coriander, English	5	5	5¾
Hempseed	2	2½	2⅝
Mustardseed, Cal. yel	4½	5	6
Mustards'd, Trieste, br	7	5½	5½
Rapeseed, English	4	4½	4¼
Rapeseed, German	3¼	4	3½
OILS.			
Linseed, domestic	46	41	45
Cottonseed, prime S. Y	42	40	37½
Olive, Sicily	66	77	80
Palm, prime	4⅝	5	6¼
Cocoanut, Ceylon	5½	5⅞	6¾
Lard, prime city	54	55½	51
Menhaden, prime cde	20	2	22½
Whale, bleached win'r	40	41	50
Sperm, bleached win'r	71	83	95
Paraffine, 25 gravity	8	8½	10½
Neutral, 34 gr. b'less	13	16	18
Black, 29 gr. 15°	8	8	8
Cylinder, 600°	15	15	17
Oil cake, western	23 00	25 00	27 50
Spirits turpentine	32¾	37¼	36
DYESTUFFS.			
Cochineal, Teneriff S	30	30	30
Cutch	7¾	6⅝	5¾
Gambier	5½	4⅝	4⅞
Indigo, Bengal h grade	1 25	1 45	1 40
Bichromate potash	10¼	9⅝	9⅝
Prussiate potash, yel	19	19	21
Sumac, Sicily prime	68 00	72 00	85 00
Starch, west'n corn blk	2½	2¾	2¾

WILL THE REBATE PLAN PROMOTE HONESTY?

At the banquet of the National Wholesale Druggists' Association at Saratoga, Mr. James Richardson, Sr., said, among other good things, that "There is more opportunity in carrying out the Rebate Plan, to educate the moral standard of honesty in every member of this association than there is inside of the holy church." This estimate of the moral possibilities of the Rebate Plan we believe to be not extravagant, and it is confirmed by the view expressed by Mr. George A. Kelly, the newly elected president of the association, as to the widespread influence which the Rebate system exerts over the whole business. In discussing the report of the Proprietary committee, Mr. Kelly said: "I believe the Rebate Plan is stronger in the hands and hearts of the wholesale drug trade of this country than it ever was before. We cannot do without it. I think I voice the sentiment of every dealer here, that if the contract plan gives way we might as well go out of business. (Applause.) Because I believe in less than one week, or about as fast as the telegraph can carry the news from one city to another, that the Rebate Plan had been abandoned, the goods would be sold at cost. I believe it would not stop there but would extend through the whole list, so that there would be several wrecks before the storm was over.

There seems to us to be no good reason why the moral possibilities which Mr. Richardson sees in the Rebate Plan, should not be as widely exerted as are the commercial influences to which Mr. Kelly refers.

In other words, if the Rebate Plan, which applies directly to the regulation of prices on proprietary goods alone, exerts an influence in preventing the ruinous cutting of prices by jobbers on almost the whole drug list, why should it not influence them to honestly observe other moral obligations than those which relate merely to the sale of articles that are covered by contracts?

It is possible, and is certainly to be hoped, that the continuance of the plan may have this effect. If such a result could be assured it would be a more potent argument than has thus far been advanced in favor of manufacturers continuing their proprietary articles on the Rebate list, and giving the system that vigorous and aggressive support which the jobbing trade asks of them.

For instance, if every jobber could be brought to realize through the reciprocal workings of the Rebate Plan that he is morally obligated not to substitute one manufacturer's goods for those of another to whom the retailer gives his preference, it would be quite an advance in the moral standard of the trade. After a manufacturer has by personal efforts, the labor of salesmen, liberal and persistent advertising and the maintenance of a high standard in all his products, established himself in the good will and confidence of pharmacists and physicians, the distributor is morally bound to respect that good will, and to encourage no infringement of it. This obligation seems to us to apply no less to staple goods which cannot be rebated, than to strictly proprietary articles. But there are a number of jobbers who do not, as yet, realize that they are morally bound to respect either the right of the retailer to order and receive the make of goods he prefers, or the right of the manufacturer to have the good will which he has created respected by the distributor, and his goods furnished to the retailer in all cases where they are specified or known to be expected.

Many retail pharmacists, as well as manufacturers, have learned by experience that there are a number of jobbing houses in the country on which the educational moral influence of the Rebate Plan might be exerted with a good chance of highly beneficial results. If, however, the plan is not found competent to correct the existing disregard of the rights of retailers and manufacturers by the distributing class, and put a stop to the indefensible practice of substituting to which the lawless resort, then the remedy lies in a closer alliance between the retail pharmacist and the manufacturer. We respectfully urge our retail friends, when ordering goods in our line, to make their preferences known beyond doubt by specifying "S. & J." or "Seabury's," and to insist upon their preferences being respected by refusing to accept any other brand, should the jobber attempt to palm off on them some inferior make which he buys at his own figures for the purpose of working off on an unwary retailer at about the price of first class goods, thus making an extra profit but at the expense of all honorable principles. If you have the misfortune to be dealing with such a jobber, look out for him. Remember the adage, "False in one, false in all;" his drugs are as likely to be inferior in quality but high in price, as his "cheap John" plasters are shown to be. There are plenty of jobbers who will respect your rights and ours and will fairly and impartially fill their place as middle-men. But if you have any difficulty in finding them write direct to Seabury & Johnson, 21 Platt Street, New York, and we will cheerfully take such steps for our mutual protection as will be satisfactory to you.

Beware of Jobbers who Substitute.

Herf & Frerichs Chemical Co

Manufacturing Chemists,

St. Louis, Mo.

MANUFACTURERS OF

C. P. Acids, Ammonium Benzoate, Bromide, Iodide, Muriate gran. pure, Amyl. Nitrite Bismuth Oxychloride, Salicylate, Subnitrate, Cerium Oxalate, Ether. kinds of

HYDROCHINON,

Iron preparations, all Scale Salts, Potassium Acetate Bromide, Chlorate pure gran., Cyanide, Iodide, Silicate Soda, Sodium Acetate, Benzoate, Bromide, Iodide, Phosphate, Salicylate. Zinc Acetate, Chloride, Iodide, Sulphate

AND A GENERAL ASSORTMENT OF

Pharmaceutical, Photographic & Technical Chemicals.

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PURE ALKALI, 48 & 58 per cent.

MANUFACTURED BY

BRUNNER MOND & CO., England. SOLVAY PROCESS CO. Syracuse N. Y.

Jarrow Chemical Company,

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Bleaching Powder, Caustic Soda, Sal Soda

Carb Soda Crystals, Soda Ash, all tests, Bi-Carb Soda.

Edward Hill's Son & Co., Agents,

25 & 27 CEDAR STREET, NEW YORK.

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Soda Ash, Sal Soda, Caustic Soda, Bleaching Powders

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IMPORTERS OF

Soda Ash, Caustic Soda, Sal Soda, Bleaching Powder, Salt Cake, Oxide Manganese, Chloride Manganese, Potash Alum, Sulphate Morphia, Carbonate Potash, Hyposulphite of Soda.

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Charles Tennant & Co.,

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25 and 27 Cedar St., New York.

Caustic Soda, Bleaching Powder, Soda Ash, Carbonated Crystals, Sal Soda, Bicarb Soda,

Caustic Potash, Carbonate Potash, Chlorate Potash,

ARSENIC.

Cocoanut Oil, Ceylon. Cocoanut Oil, Cochin. Palm Oil, Citronella, Fisher's Brand Cookson's Ven. Red, Orange Mineral,

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ESSENTIAL OILS,

LEMON, BERGAMOT AND ORANGE, GUARANTEED PURE.

PURE ALKALI.

Manufactured by the Ammonia Process.

This Alkali contains 58 per cent. of Alkali or nearly 99 per cent. of Carbonate o Soda. It is the most economical form of Soda for Manufacturers of Soap, Glass, Paper, Wood Pulp and Colors, and for Printers and Bleachers.

CRESCENT BRAND TRADE B.M.&Co. MARK

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THE SOLVAY PROCESS CO. will make by this same process an Alkali adapted for Window Glass Makers testing 48 per cent.

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WING & EVANS have appointed as exclusive Sale Agents SLINDER & MEYER BOSTON, for New England States who are prepared to contract for future delivery

CHEMICAL MARKET.

Note—*Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures.*

The prices current will be found on page 50.

TUESDAY EVENING, Sept. 25, 1888.

Heavy Chemicals.

A further improvement in the tone of the market for heavy chemicals is noted, prices showing a decided upward tendency in sympathy with foreign advices and the continued high rates of ocean freights. The improvement in prices is stimulating the demand, but the absence of important supplies checks business, and gives the market an appearance of quietness. From Liverpool, under date of Sept. 15th, Messrs. J. P. Brunner & Co. say: "Since writing you on the 8th inst. the combination in caustic soda has ordered through its committee a reduction of one week's make within a month, i. e., the middle of October, and some makers have already commenced to reduce. The trade has on the strength of this, bought largely and prices have advanced to £6@6 2s 1d for 60%, £7@7 2s 6d for 70%, and £7 10s @7 15s for 74%. Makers as a rule are sold out for this month and largely sold for next month. Sales are also reported on contract for all next year at £7 for 70%. How long prices will be maintained unless at the same time reduction in the decomposition of salt is made, remains to be seen. Soda ash is quiet and unchanged, the inquiry, however, improving. Caustic ash, 48%, is quoted at 15-16@1d' high test 31-32d@1d; Carbonated ash 48%, 31-32 @1d, high test, 31-32@1d; soda crystals are held at £2 8s 9d@2 10s; bicarb soda £4 10s@4 12s 6d. Chlorate of potash is in improved demand and a good business has been done at 5@5½d for for prompt, up to 5¼ for October—December. There have also been large orders at 5d for contracts over next year refused, 5¼@ 5½ being required. Regarding a combination in this article it is said that the number of makers being so small combination should be comparatively an easy matter. Bleaching powder continues scarce, but the demand also is only light; the quotation is £7 18s 9d@8."

Carbonated soda ash is in better demand, in sympathy with advices of an advancing market abroad. The feeling here is firmer, and for Liverpool brands of 48% to arrive, there is nothing now procurable below 1 27½@1 30c, while from the small stock on the spot jobbing sales are making at 1 32½@1 37½c, as to quantity.

Newcastle soda ash 48%, is offered to arrive at 1 25@1 27½c, but business is somewhat restricted by the limited offerings. For jobbing lots from store 1 32½@1 37½c, as to quantity, is demanded.

Caustic soda ash 48%, is quiet, but the feeling is firm. For shipments, 1 25@1 26¼c is now asked, while small spot lots command 1 35c from store.

Caustic soda is excited and advancing rapidly. The combination of the manufacturers to which previous reference has been made in these columns, has ordered a reduction of a definite percentage in the production, and it is expected that the percentage of reduction in output will be increased at the meeting to be held in Liverpool this week. Prices there have advanced about 15% on 70% and are expected to go still higher. In this market holders are now quoting 2 47½@2 50c for 60% in large lots and 2 75@2 87½c for jobbing quantities; 2 32½@2 37½c for 70% on the spot or to arrive, and 74% at the same figures, though for the latter prices might still be shaded somewhat. The demand has been stimulated by the upward movement in values and a considerable business is being done, particularly in forward deliveries. In Boston 70@74% are yet quoted at 2 25@2 27½c to arrive and 2 30@2 35c on spot there.

Sal soda is in more demand though prices are still unsettled in consequence of increased spot supplies. At the close however a better feeling obtained and we heard of nothing offering below 95@97½c on the spot, while the quotations for lots to arrive were 90@92½c.

Bleaching powder is decidedly firmer, and prices show a further advance. The upward movement has stimulated the demand, and, but for the limited offerings of stock on the spot and to arrive, a large business might be done. As it is, dealers report that the demand at present is larger than it has been in the past three months. At the close the quotations were 2@2 1-16c for large lots to arrive and 2¼@2 15c for jobbing parcels from store. The Boston stock is much depleted but supplies are still offered there below New York quotations the latest prices named being 1 95@2c.

Acids.

Acetic acid is not wanted to any extent, and a quiet feeling has prevailed, with prices unchanged at 2¼@2¼c, as to quantity and quality.

Nitric and muriatic acids are in moderate request, while our former quotations continue to rule.

Oxalic acid is selling in a moderate way and the advance has not limited trading to any extent, the business comparing favorably with last week. Quotations still rule at 8½c per lb for 10-ton lots and 9c per lb by the single cask. This is for prime German and English makes, ex dock or store, New York, Philadelphia and Boston. Terms net cash.

Tartaric acid has continued to move moderately, but no special features are evident, and quotations are unchanged at the following prices: For crystals, in quantities of 3,000 lbs or more, 43c; in barrels, less quantity, 44c; in 50-lb boxes, 45c. For powdered, a cent advance is asked over these figures.

Sulphuric acid.—The demand is quite brisk and it is said the factories are running to their fullest capacity. Prices are quoted at 1½@1½ with the market firm at these figures.

Miscellaneous.

Acetate of lime is in moderate request in a jobbing way, but there has been a continued absence of special business. Brown is ruling at 1.15@1.20c and gray at 2.25@2.30c.

Blue vitriol continues to be quoted at high figures, owing to the absence of available supplies. There is little inquiry, while holders are still asking 8c, except in a very large way, for future delivery, when the figure could be slightly shaded.

Brimstone is somewhat firmer, owing to the advance in the rates of freight. Severel transactions for shipment have been made, but the amounts or selling figures could not be obtained. Prices continue at $20 for best unmixed seconds and $19.50 for thirds. On spot the trading has been only moderate, with values quoted at $20.50 for seconds and $19.50 for thirds.

Nitrate of soda.—The market is firm in tone to-day at 2.17½@2.20c for supplies on spot. Sales are reported of 3,000 bags on spot at prices under these figures, namely, 2.10@2.12½c and to arrive, sales of 750 bags are reported at 2.07½@2.10c.

Cream Tartar is in fair demand without feature, and prices are quoted at previous figures, namely, 32@32¾c for crystals and 32¾@33½c for powdered, as to style of package and quantity. Terms, net cash, 30 days free on board New York, or, less 1 per cent, for prompt cash.

Ammonias, Potashes and Fertilizing Chemicals.

Stocks continue light, with a fair demand existing, while prices are firm and high in consequence of the limited supply on spot: Azotine, continues to be quoted at $2 30@ 35, as to quality; dried blood $2 30@2 35 for low grade Eastern in buyers' bags and $2 35@2 37½ for high grade Western finely ground; tankage, $23@24 for high grade, and $21@22 for medium and low grades, as to quality; sulphate ammonia, $3 15@3 20; bone-black guaranteed 70% phosphate, $17 50@19 per ton; dissolved bone, 90c per unit; acid phosphate, 75c per unit; rough bones, $21 per ton for hard and clean foreign, and $16 50 for the usual run of domestic; ground bone, $24@25 as to grade; fish scrap, $24@25 f o b factory. Undried Charleston rock is held at $5 per ton, and kiln dried at $6, both f o b vessel, at the mines. Ground Charleston rock is now quotable at $10@10 50 ex steamer at New York.

Muriate of Potash.—Rather an increasing demand has been noticed for this article, with prices firmly held at $1 80@1 85, according to size of order.

Double Manure Salts.—Stocks of this article are only in limited supply, and as a consequence business is somewhat restricted. Prices are firmly held at 1 15@1 20c basis of 48@50% potash. Sulphate of potash basis of 90% continues scarce with prices ranging from 2 25@2 35 per 100 lbs according to size of order.

Kainit continues scarce and is quoted at high rates, with little business doing in the absence of stocks. Quotations continue nominal at figures, in the neighborhood of $10 30.

Alkaloids of Codliver Oil.

The authors of the process below have obtained a mixture of bases containing several new animal alkaloids or leucomaines. The fawn-colored oil, which is generally considered to be the most active, gave the largest yield of alkaloids. To obtain the oil, the codlivers are placed in barrels to allow the oil to flow away spontaneously. The oil comes away at first of a pale yellow or greenish color, but afterwards a fermentative or digestive (not putrefactive) process is set up, by which the oil dissolves the alkaloids from the tissue and assumes a fawn color. The oil, originally colorless or greenish, contains only two traces of alkaloids. To obtain the bases, the oil is extracted with an equal volume of 34 per cent. alcohol containing 4 grms, oxalic acid per liter. The solution is nearly neutralized with lime, filtered, and evaporated at 45° *in vacuo*. The residual liquid is digested with precipitated chalk, evaporated to dryness *in vacuo*, and the residue is dissolved in a little water, treated with excess of caustic potash, and shaken with ether. The alkaloids are precipitated from this solution on the addition of oxalic acid in ethereal solution. From 52 to 65 grms. of the oxalates were obtained from 100 kilos of oil. The alkaloids are obtained by adding potash to the aqueous solution of the oxalates and form a thick brown, very alkaline oil which floats on the water and may be dried over recently-fused caustic potash. The mixture of bases thus obtained was submitted to fractional distillation in an oil bath. About half the quantity came over below 200°, and contained butylamine, amylamine, hexylamine, and a new base, hydrolutidine, boiling at 198°-200°. The residue contained two new bases, named aseline and morrhuine, a little lecithin, and a crystallizable nitrogenous acid named gaduinic acid,

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Phosphate Rock Shipments.

The following shipments of crude phosphate rock, from Charleston, S. C., during Aug. 1886, 1887 and 1888, are from Mr. P. C. Trenholm of Charleston:

Domestic.	1886.	1887.	1888.
Baltimore	8,417	3,690	1,655
Philadelphia	3,364	2,483	600
Weymouth, Mass.	500	....	900
Barren Island	520	....	757
Mantua Creek, N. J.	605	....	....
Wilmington, Del.	1,011	1,180	1,125
Staten Island, N Y	850	....	....
Orient, L I	500	525	....
Elizabethport, N. J	727	1,189	....
Booth Bay, Me	....	655	1,164
New York	....	780	....
Wilmington, N. C.	....	1,073	200
Newtown Creek, N. Y.	....	1,332	....
So. Ca. RR., westward.	290	1,170	1,588
C. & S. RR., westward.	2,066	1,161	3,129
N.E. RR., westward	218	....	420
Total	19,068	15,238	11,538
Foreign.			
London	....	....	....
United Kingdom	850	....	....
Bristol	....	550	....
Total	850	550	....

Estimation of Glycerin in the Crude Article.

BY R. BENEDIKT AND M. CANTOR.*

For a determination of the commercial value of crude glycerins, there does not as yet exist an easy and trustworthy process. Most of the processes as yet proposed give uncertain results, particularly the one based on the oxidation with chromic acid, as many other organic bodies are also oxidized to carbonic anhydride and water. The process with permanganate by Benedict and Zsigmonday has certainly given good results, but in the case of crude glycerine the sample must first be diluted, then treated with subacetate of lead, and the excess of the latter be removed by sulphuric acid before we can titrate.

R. Diez has applied Baumann's test for the estimation of glycerin in wines, etc. The solution is agitated with soda ley and benzoil chloride. The precipitate, consisting of glycerin di and tribenzoate, is weighed, an allowance being made for solubility. Although we will not dispute the use of this process when applied to wine analysis, we have never succeeded in getting correct results with it in the case of crude clycerins, even by scrupulously following Diez's directions. The error amounted from 3 to 8 per cent. of the total glycerin. We now propose the acetin process, which gives quick and correct results, and is based on the folowing principle.

Glycerin on boiling with acetic anhydride passes completely into triacetin. If water now be added, and the amount of uncombined acid exactly neutralized with soda, the combined acid may be easily ascertained by saponifying with excess of soda, and tritrating back with standerd acid. The followins solutions are required:—

1. Half normal or normal hydrochloric acid, the exact strength of which must be ascertained with the greatest care.

2. A solution of 20 grams of sodic hydrate in a liter of water.

3. Ten per cent caustic soda in a flask holding about 1½ liter. The flask is closed by an india rubber cork, through which passes a 25 c.c. pipette, the top of which is closed by an india rubber tube and a clamp.

About 1·5 grm. of the sample is weighed in a wide neck flask with round bottom; 7 grams of acetic anhydride and 3 grams of anhydrous sodic acetate are added, and the whole boiled for one and a half hours under an upright condenser. After it has somewhat cooled, 50 c.c. of water are added, and the mixture once more brought up to the boiling point. This must also be done under upright condenser, as the triacetin is sensibly volatile in water vapor.

After the oily mass has dissolved, the liquid is filtered into a wide-necked flask of about 600 c.c. capacity. A white flocculent precipitate, which is rather large in crude glycerins, remains in the filter, and must be well washed. After complete cooling, phenol-phthalein is added, and the fluid just neutralized with No. 2 sodic hydrate. The point of neutrality is reached when the fluid turns yellowish-red.

The pipette (No. 3) is now filled, and the contents delivered into the flask. Care must be taken that in doing the check, the pipette shall deliver exactly the same quantity. After boiling for a quarter of an hour, the excess of alkali is titrated back with the acid No. 1.

EXAMPLE.

Taken 1·324 grams of glycerin.	
28 c.c. alkali	= 60·5 c.c. N acid.
Titrated back with	21·5 " "
Triacetin is equivalent to	39·0 " "

1 c.c. of acid representing ·03067 grm. of glycerin, the sample contains 90·3 per cent.

Testing fats for diglycerides: from the case with which glycerin can be made into triacetin, we may conclude that the mono or diglycerides of the higher fatty acids may be readily converted into triacetin by boiling with acetic anhydride. Another aid to the accurate analysis of fats is thereby obtained, as it is easy to directly estimate the percentage of mono or diglyceride a sample may contain.

Let M be the molecular weights of the diglyceride, a the saponification number of the fat before, and b after the acetyling, then as 56 stands for KHO, and 42 for the residue C_3H_5O, the percentage of diglyceride will be—

$$\frac{100\,M\,(b-a)}{5600-42\,b}.$$

For instance, the stearin from colza oil has to be examined for dierucin

$$C_3H_5(OC_{22}H_{41})O_2H.$$

We first determine the saponification equivalent, then acetylize 20 to 50 grams of fat, according to the directions of Benedikt and Ulzer, and estimate the saponification number again. For pure dierucin this is 153·3, for acetylized dierucin 217·4. The molecular weight is 732. If $a = 46$, and $b = 67·8$, then

$$D = \frac{100 \times 732 \times 21·8}{5600-42 \times 67·8} = 30\% \text{ dierucin.}$$

If the amount of diglycerides is very small, the combined acetic acid is better estimated by Reichert's process. The calculation is somewhat more troublesome if the fat contains glycerides of oxyacids, as these give also an acetyl number. In this case we isolate the fatty acids first, and then determine their acetyl equivalent.

Reimer and Will particularly point out that colza oil contains an oleic acid, which is isomeric with the oleic acid of castor oil. This is, however, contradicted by its low acetyl number, which they found to be 6·3, corresponding with 3·8 per cent oxyoleic acids. The true composition of colza oil is not as yet

*Zeitschr. f. angew Chemie, No. 16.

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Ammonia Carbonate,	" Scale,	" Nitrate,	Tin Oxide
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known with certainty, then its dine absorption power 100, whilst the acids which Reimer and Will have isolated give a far lower figure—erucic acid 75·2, benic acid=0, rapinic acid 85·2. It is, therefore, probable that a large proportion of another acid of the linseed oil type must be present.

Dierucin is the only glyceride as yet isolated from natural fats, but it must yet be ascertained if it really exists in the fresh oil.

Allen has lately suggested that Japan wax contains dipalmitin. The direct test gave a negative result. The saponification equivalents of the original and acetylized wax were found to be the same, viz., 222.

On saponifying butter with an insufficiency of alcoholic potash, Bell got an oily substance, melting at 4·4°C. We have repeated this experiment, and indeed obtained a thinnish oil, with a strong butyric ether smell, which, however, did not yield any glycerin, and must therefore have consisted for the greater part of ethylic ethers.

The Foreign Salt Syndicate.

The English salt syndicate are much disturbed by newspaper attacks. The secretary of the syndicate said last week that they had not the remotest idea of increasing the price of salt to consumers, the chief objects being to obtain a fair, reasonable price, and thus reestablish on a firm footing one of the most ancient British industries. True, other important industries, such as chemical manufacturers, largely using salt and lime might suffer, but the syndicate would not be so foolish as to ruin the best customers. The present price of common salt is thirty cents per ton, which is below the cost of production. This state of affairs is due to reckless competition, whereby the buyers and dealers solely benefitted, largely at the expense of producers.

Many attempts have been made to corner salt from time to time. Each failed, owing to individual secessions. Therefore the sole remedy was to get all the salt producing properties under one ownership. The syndicate's present intention is to increase the price to seven shillings and sixpence a ton, which will not add the thirtieth part of a penny to the retail selling price, while putting about 500,000 sterling into their pockets. In 1886 the latest returns available show that of the total British product Cheshire furnished 1,636,424 tons; Worcestershire, 260,000; Durham, 98,562; Ireland, 31,000, and Stafford, 5,810. The syndicate consists of all the Cheshire owners. They have also arranged to establish works at Dortwich if necessary. This arrangement is meant as a threat to John Corbett, the member of Parliament who is known as the salt king. He is the owner of enormous works. The syndicate have tempted him with the most flattering proposals, but he sturdily refuses to have anything to do with them. He is preparing to fight and the syndicate evidently greatly fear him. The present indications point to a bitter fight between Corbett and the syndicate, in the course of which foreign producers ought to be able to take a profitable interest.

Digest of the Fertilizer Laws in Several of the States.*

CONNECTICUT.

To all fertilizers retailing at ten dollars or more per ton the seller must affix a correct label and furnish to the director of the Experiment Station a certified statement of its composition and a sealed sample must be deposited by the manufacturers or importers with the director. The manufacturer or seller must deposit with the director of the Experiment Station an analysis fee of ten dollars for each fertilizing ingredient which the fertilizer contains. Every person who sells or acts as agent for the sale of any commercial fertilizer shall annually, or at the time of becoming such seller, report to the director of the Experiment Station his name, residence and post office address, also the brand of fertilizer sold. No person or party shall sell in the State any pulverized leather, raw, steamed, roasted or in any form, as a fertilizer, or as an ingredient of any tertilizer or manure without explicit printed certificates of the fact being conspicuously affixed to every package. The director of the Experiment Station is authorized in person or by deputy to take samples for analysis.

MAINE.

For the purpose of protection from fraud in commercial fertilizers and from adulterations in food, feeds and seeds, the Maine Fertilizer Control and Experiment Station was established. It provides that to every package of commercial fertilizer, the price of which exceeds ten dollars, there shall be affixed a certificate stating the number of net pounds in package, the name or trademark of the brand, the name of the manufacturer, the place of manufacture and a chemical analysis of the fertilizer. For the sale of such fertilizer annually, by April 1, a license must be procured by the manufacturer, company or person selling in the State, from the board of managers for the Station. A license fee of fifty dollars for a single brand and fifteen dollars for each additional brand is required, and there must be furnished to the secretary of the board of managers the names of all the agents authorized to sell the fertilizer in the State. The director or his deputy is empowered to select annually fertilizers for analysis from these different packages, from three different sections of the State.

MASSACHUSETTS.

The new law, recently enacted in Massachusetts, provides that the manufacturer, importer, agent or seller shall, for any fertilizer that retails at more than ten dollars per ton, annually, before the first day of May, pay to the director of the experiment station an analysis fee of $5 for each of the three fertilizing ingredients—nitrogen, phosphoric acid and potash—claimed to exist in the brand. A printed statement must accompany each package giving the name and address of the manufacturer, also the chemical composition of the fertilizer. No person shall offer for sale any pulverized leather, raw, steamed, roasted or in any form as a fertilizer or ingredient of any fertilizer or manure without affixing a printed certificate of the fact to every package. The director shall cause one analysis or more annually to be made of each brand of fertilizer and the results are to be published monthly.

NEW JERSEY.

Every commercial fertilizer offered for sale must be accompanied by an analysis and the method of stating the analysis is defined. The chemist of the State Board of Agriculture is the inspector of fertilizers and he must analyze annually one or more samples of every kind of fertilizer offered for sale. Any person interested may obtain an analysis, from the inspector, of any fertilizer, and for the certificate of analysis the parties must pay to the chemist a sum not exceeding fifteen dollars.

PENNSYLVANIA.

The law specifies that every package of commercial fertilizer offered or exposed for sale in the state shall have plainly stamped thereon the name of the manufacturer, place of manufacture, net weight of contents and an analysis stating the per cent. Every manufacturer or importer must annually file with the Secretary of the Commonwealth an affidavit stating the amount of said fertilizer sold within the state during the preceding year. It is the duty of the Board of Agriculture to analyze such specimens of commercial fertilizers as may be furnished by its agents.

The license fee required is $10 for every hundred tons sold, $20 for 100 to 500 tons, and $30 for above 500 tons.

NORTH CAROLINA.

The law in this state requires that the manufacturer or seller must procure a license from the state treasurer for which he shall pay a privilege tax of five hunded dollars for each separate brand or quality offered for sale. There must be also afixed to every package of fertilizer a printed label setting forth the name, location and trade mark of the manufacturer, also the chemical composition of the contents of each package. The Department of Agriculture may require the officers agents or managers of any railroad or steamboat company to furnish monthly statements of the quantity of fertilizer, with the name of the consignor or consignee, delivered at any points in the state. They may even compel the company to submit their books for examination.

TABLE SHOWING STATES REQUIRING LICENSE, TAX, OR ANALYSIS FEE, FOR SALE OF FERTILIZERS.

State.	Requirem'ts*	Amount required.
Connecticut	Analysis fee.	$10 per ingredient.
Delaware	Analysis fee.	$30 to $40.
Georgia	Tax.	50 cts. per ton (for tags).
Indiana	Analysis fee.	$2 and $1 per 100 for tags.
Kentucky	Analysis fee.	$15 and $1 per 100 for tags.
Louisiana	Tax.	50 cts. per ton.
Maryland	License.	$5 1st 100 tns, $2 for en. ad'l 100 tns.
Maine	License.	$40 1st brand, $15 each add'l br'nd.
Massachusetts	Analysis fee.	$5 each ingredient.
Michigan	License.	$20 per brand.
Mississippi	Analysis fee.	$20 " "
New Hampsh'e.	License.	$50 " "
New Jersey	Analysis fee.	$15 " "
North Carolina	Privilege tax	$500 " "
Ohio	License.	$50 " "
Pennsylvania	License.	$10 for 100 tons, $20 for 100 to 500,
Rhode Island	License.	[and $30 above 500 tons.
South Carolina	Tax.	25 cts per ton (for tags).
Tennessee	Tax.	50 cts. per ton.
Vermont	License.	$50.

*Recents legislative enactments may have slightly modified the law in some States.

In a few of the States the number of analyses made for the past year are given, and so far as known they are given below:

	No. analysis.
Massachusetts	110
Maine	86
Connecticut	291
New Jersey	150
Pennsylvania†	
North Carolina	223
Georgia	413
Alabama	186

†The analyses of 226 substances are given in the report for 1886, but the total number of analyses made is above 400.

The tables just presented show that nearly every State using commercial fertilizers to any extent, except New York, require either a license to be taken out by the manufacturer or seller for the sale of commercial fertilizers, or that an analysis fee be deposited with the proper official.

In the South a tax is levied upon the fertilizer of 25 to 50 cents per ton, and in Georgia the tax amounts to more than $100,000 annually. The analysis fee or license ranges from $5 or more in Maryland to $50 per brand in several of the States, while in North Carolina it is $500.

While these other States give protection to the farmers against fraud in commercial fertilizers, and provide for their analysis, New York, whose farmers are expending fully $3,000,000 annually for commercial fertilizers, are left to provide their own protection and take their chances of receiving what they pay for.

Fortunately for the farmer, the majority of the manufacturers of commercial fertilizers are sincere in their efforts to put upon the markets goods which shall be all that is claimed for them. There are those, however, who by using misleading terms in their analysis, terms with which the farmers are not all familiar, are no less guilty of intentional fraud than was the manufacturer of Mason's high grade fertilizer which was analyzed in 1885 at the New York Agricultural Experiment Station and found to contain $1 52 worth of fertilizing ingredients per ton, and yet this fertilizer was being sold at $30 per ton to the farmers throughout this State. There are other fertilizers sold the present season in the State of New York which have fallen considerably below the guaranteed analysis.

*From Bulletin 12 of the New York Agricultural Experiment Station.

Petroleum Fuel.

BY S. S. LEONARD.

The use of petroleum is by no means of recent date. It was known to the ancient Greeks and Romans, being used by them for illuminating purposes, as they had no electric lights in that day. In fact the word "petroleum" is of Latin derivation, meaning "rock oil." It has been, and is being, used for various purposes, from the sure cure of numerous diseases to the generating of steam for electric light stations. It is found in many parts of the globe, although there are but a few localities that are especially noted for its production. In our own country, New York, Pennsylvania, Ohio and West Virginia produce the greater part of the supply. Although it was known to the early settlers of these States, very little importance was attached to its value. I presume that there are none so young here but who well remember the oil craze, and the saying which was heard almost daily of "So and So" has struck "ile." Perhaps some of the members of this convention were fortunate enough to strike "ile" and possibly some were unfortunate enough to have been struck by "ile."

But to return to our subject, petroleum fuel. To say that it is a new fuel would hardly be correct, for petroleum has been used as a fuel for a number of years. Experiments to determine its practicability as a fuel have been creating a great deal of attention from those interested in the matter for the last twenty years, and is now occupying the minds of some of our ablest engineers and inventers. Quoting from a very able paper on this subject by Charles E. Ashcroft, which was published in the Boston *Journal of Commerce*, May 26, 1888, Mr. Ashcroft says that the calorific power of petroleum for the purpose of generating steam, and the evaporation of water, is several times greater than that of ordinary coal. The successful use of oil as a fuel has, however, been of very recent date, yet so rapidly has it grown in favor that to-day it is regarded as a strong competitor of coal for steam generating purposes or where heat and fire are wanted. It was with a great many knowing winks and nods of the head from the engineers and firemen, who laughed at the idea of making steam by the use of oil, that the writer attempted the use of petroleum as a fuel. Of course, it would not work, and it did not work, why? Because those who were using it did not want it to, as they were afraid some one would lose his job, We had seen enough of its workings to satisfy ourselves that it could be made a success, and the result is that to-day we are saving from twenty to twenty-five per cent. on the cost of the fuel, and 50 per cent. in labor, and these same men who laughed so hard on the start at our attempt to use oil would feel that this world was a poor place to live in were we to return to the use of coal, for not only their hearts but their backs would certainly be broken.

Its advantages over other fuels are many. In the first place it is much easier handled; a steadier fire is easily maintained under your boilers, consequently the steam is kept a more even pressure, a very important thing in the running of electric lights; there is no opening of furnace doors allowing cold air to come in contact with the boilers, and there are no impurities in the oil such as abound in coal. When through with it, by a simple turn of the wrist your fire is put out, and your ash pits are as clean as they were before your fire was started. In less time than it takes to tell it you can start the fire. It is only rivalled in handling by natural gas, and even then, unless we have all the modern appliances for the handling of this gas, it is far easier to manipulate.

Permit me to describe the arrangements for the handling and use of this oil put in under the supervision of the writer. The oil is received in tank cars holding from 90 to 150 barrels each (42 gallons to a barrel). From these cars it is drawn off through a valve in the bottom of the car to a storage tank or tanks, there being two of them, holding about 300 barrels each. These are placed underground so that the oil runs from the car into them by gravity; care should be taken not to spill the oil or stir it up more than is necessary, as the odor from it is fully equal in strength to that of new mown hay, if not quite as agreeable. To prevent the stirring up of the oil, the supply pipes entering through the top of the tanks run nearly to the bottom, so that the tanks are practically filled from the bottom.

In the top of each tank are man-holes and a vent pipe; this latter is extended above the tanks a short distance. These tanks, which are boiler shaped, are placed end to end with a space of about 8 feet between them. This gives room to get at the various pipes. They are joined together at the bottom by a pipe which also connects with the supply pipe running to the boiler room. Then in the bottom of each is a drain pipe which will admit of cleaning them out whenever necessary. There is also a gauge glass in the end of each to show how much, if any, water is in them; there is also a gauge made by a copper float, which indicates the amount of oil in each tank. In cold weather a steam coil is inserted in the tank car around the mouth of the valve to heat the oil so that it will flow readily, for when the thermometer gets in the vicinity of thirty or forty below, the oil is apt to be a little thick. Care should be taken not to heat the oil too much, for when hot it generates considerable gas, which is not only very odorous, but is really the cream of the fuel. I think it an advantage to have the storage tanks underground, there being less danger from them in case of fire, and during the winter the oil is less likely to chill. An open light should never be used near them, although the oil itself is really hard to ignite unless heated to a certain degree, still there is apt to be more or less gas around, which is quite explosive if brought in contact with fire. The supply pipes to the furnaces are provided with a valve where they enter each tank, also one in the fire-room. This pipe, a 2½-inch one, is enlarged to a 6-inch for about 4 feet, and in this 6-inch pipe a small steam pipe is inserted. With this, the oil is heated from 130° to 140°. This lightens it so that it burns more readily, or I should say is turned into gas.

We now come to the burners, which are also fed by gravity, as the storage tanks, although underground, are still higher than the furnaces. One might suppose that owing to the recent introduction of petroleum as a fuel that some difficulty might be experienced in obtaining a burner, but their name is legion, and they are of numerous as electric light systems, and like them in another respect—each man's is the best. Our experience has been that the more simple the burner the better the result. One that thoroughly vaporizes the oil before burning it, is, we think, preferable to one that burns the oil. In the former there can possibly be no waste. In furnaces where we have been using this kind of a burner the bricks are as clean as they were the day they were put in. Steam and hot air are the other ingredients that are used in connection with the oil, and an abundant supply of the latter, we have found, adds very much to the efficiency of the fire.

Regarding the proper settings, circumstances will determine that to a certain extent. An excellent plan is given by the Standard Oil Company in their pamphlet, "Oil as a Fuel." This we have adopted with a few modifications which we found necessary by experience. There is no doubt that a hotter fire can be obtained from oil, than from coal or wood, and when the oil is properly used the smoke nuisance is solved, which has been agitating the minds of the people of some of our large cities, for there is not a particle of smoke to be seen issuing from the stack, not even when everything is running full blast.

A word as to its danger: When properly put in and handled with ordinary care, or when good common sense is used in the employment of this oil, I do not see why it should be any more apt to cause trouble than coal, although the insurance companies insist on higher rates when used. I think it more from ignorance of the subject than from there being any more danger. At the same time, I am willing to admit that it could be put in and used in such a way as to greatly increase the danger of fire. So might your house be wired for electric lights, piped for gas, or a kerosene lamp hung on your gasolene stove filled in such a manner that the fire risk is much greater than with your neighbor who uses electric lights, gas, kerosene or gasoline the same as you do, but has his put in properly and handles it as it should be.

As to its economy over coal, I have already mentioned that there was a saving of from twenty to twenty-five per cent on the cost of the fuel, and from forty to fifty per cent in labor. From tests recently made by us, the following figures were obtained: 111·34 horse power, running six hours, used 250 gallons of oil, costing $5.50, or at the rate of 70 cents per 100 horse power per hour; 104·8 horse power, running six hours, used 3,461 pounds of coal, costing $5.45, or at the rate of 86 cents per 100 horse power per hour. Another test gave the

following figures: 96·45 horse power, running eight hours, used 4,014·75 pounds of coal, costing $6,32, or 80 cents per 100 horse power per hour; 115·54 horse power, running seven hours, used 233 gallons of oil, costing $5 05, or sixty-two cents per horse power per hour. On the above figures, oil is from seventeen to thirty-two per cent cheaper than coal. The highest evaporation made with oil was 14·8 pounds of water per pound of oil with feed water at 103, and with coal 5·38 pounds of water per pound of coal, feed water at 103. The coal used was a good grade of Illinois lump, costing $3 15 per ton, but which is usually worth $3 25.

In the matter of labor, one man can easily attend from seven to ten 150 horse power boilers, and then have less to do than he would were he firing one boiler with coal. After a week's run with oil, your boiler flues are much cleaner than they would be from the use of bituminous coal for one night, especially Western coal. Your fire room can be kept as clean as your dynamo room. There being no ashes, you are saved the expense of handling them, as well as the dirt, and the former is no small matter where some twenty tons of coal are being used every twenty-four hours. I might say that the above tests were made during a part of the day's run, and it is our opinion that a more favorable showing could be made with the oil where a larger number of boilers are in use. It seems to work better with a good fire than where a small fire is sufficient. With our pipe lines affording a cheap method of transportation, the future of petroleum fuel is assured; and I think there is no doubt that with true Yankee ingenuity a burner, or some method, will be brought forward by which the use of petroleum as a fuel will be greatly improved.

DISCUSSION.

Mr. Morrison.—As Mr. Garratt was reading Mr. Leonard's article I asked Mr. Pope to analyze those figures. Here they are: 250 gallons of oil cost $5 50; that is seventy cents per 100 horse-power per hour. Coal costs eighty-six cents per 100 horse-power per hour, a difference of ten cents per 100 horse power per hour. If you take a station of 5,000 or 6,000 horse-power and run a year, that is a considerable item. This paper is a very startling one to me. I saw it yesterday, I think. It is a most startling one if the details are true. We have no reason to doubt the statements; I have none. If any gentleman has made any experiments in that direction that will throw a doubt on these statements I hope he will get up and say so. In 1865, that is twenty odd years ago, I was a telegraph operator at Parkersburg, in West Virginia. They did not get coal enough for their use. There was a man named Shipley, who was engineer in the Swan House, a tavern right across from the telegraph office, and there for the first time I saw the burning of petroleum. There was plenty of it there then. Wood County had got into the habit of squirting oil out of the ground, as in Pennsylvania, and oil was very cheap. I think it is cheaper to-day than it was then. If this is true I want to know something about it, for we will be running 6,000 or 7,000 horse-power in our Baltimore station within the next six months or so. There is another item not mentioned in the paper. It costs us twenty-five cents a load, with coal, to haul the ashes away. We use a low grade of fuel. It costs a little less than $3 a ton. It is known as screenings and soft slack coal. It has always been an open question with me whether there was very much economy in the end with it; it costs well up to $3 before you get through with it. Now it costs you three men to handle it, and out of this trash that you burn, the ashes are nearly 50 per cent. of the fuel you put on the grate bars. Of course, you must make allowance for these statements, because I am making them off-hand. But I observe if we burn, say, fifty or sixty tons of coal of a night, we generally have thirty or forty cart loads of ashes to haul away the next day. Now, that goes to show that pretty near half of the stuff comes out in the form of ashes and sand and slate from the mines. That is another item that you can charge up to the economy of this petroleum fuel. In the new station we are going to build, I shall equip one battery of boilers with coal oil. Mr. Weeks, of Kansas City, is going to make large additions to his plant, and I hope he will do exactly the same thing. What do you pay for coal in your country, Mr. Weeks?

Mr. Weeks—$2.50 non-bituminous. We use about six pounds per horse-power per hour, with Ide engines.

Mr. Frank Ridlon—I have been superintendent of a large coal tar company. From that material we got out various substances that were valuable for coloring matters. We finally came to the last portion of that which was known as dirt oil. It was used at that time for the making of glass, and was also sold latterly at a somewhat higher price for the creosoting of wood for railroad ties, spiles, etc. We at one time found it impossible to get a sale for that article, and when we had to sell it for about $1 a barrel we found it cheaper to burn it, and we did burn it with very good satisfaction, although the apparatus for using it was very crude indeed, as to the wasting of fuel. We adopted a perforated plate and another plate that was not perforated underneath and let the oil drip down upon it.

Mr. De Camp—I would like to ask how long Mr. Leonard has been using oil.

The President—The Chair will state that he was in Minneapolis about July 10th, and Mr. Leonard had then been using that oil several months. He had first made the experiment with smaller quantities of oil, but the company had got to that point where he had put these tanks in as reservoirs, and they ran in a side track alongside his station, and emptied into his reservoir tanks. It is as clean and nice a piece of business as I ever saw.

Mr. DeCamp—Mr. Leonard's paper is a very remarkable one. Some two or three years ago I paid some considerable attention to the subject of oil fuel. Several methods have been adopted in Philadelphia for the utilization of oil, but the parties who have adopted them have finally abandoned them. I was never able to learn just what their reasons were, but they used them with apparent success for some time and, from what they said, with great economy, and then they dropped it. During a residence of two years in the oil region I found that the people there who are controlling wells and who had every facility for getting cheap oil from the various refineries through the country, would prefer to pay as high as $20 a ton for coal. There also would be occasionally a man who would start up with oil-burning apparatus, but that would be abandoned. Those things, in connection with the inquiries in Philadelphia and the final results of their efforts there, led me to abandon the idea. I see figures are presented in that paper on the first cost of the fuel as compared with coal. There is not a very material difference, but the labor item and other expenses connected with coal, which would not be required with this, make the paper of very great interest to this association. I have recently got through with a test of coal. I have been using one particular coal for about four years, and we do not seem to have the benefit of the competition in the coal business. In fact, we do not seem to be able to strike coal that is equal to it; and so we are confined to that particular coal. But the result of a recent test made with a new coal, as compared with the coal we are now using, which was a difference of eighty-five cents a ton. Our coal cost us in one instance sixty cents per 100 horse power per hour, and the other, sixty-three cents, the sixty-three cents being the lowest priced coal. Now, we differ from Mr. Morrison; we do not use screenings. I have come to the conclusion in the last two or three years that the best coal was, taking all things into consideration, the cheapest coal to use. In the one case, the cheaper coal gave about three cart loads of ashes—three and a half cart loads of ashes to every ton of coal, and in the better class of coal it was a trifle less than two. Our ashes cost us, from one station seventy-five cents a load to haul, and from another station forty cents. There is a difference in our experience in using what we think is good, clean coal. We have had no refuse to contend with. In the comparison between those two coals on the point of labor I do not recollect just how many men there are in the boiler house, but it would have been necessary to have put one additional man in the boiler room from the fact that the better coal would run a full fourteen hours without the fire being cleaned, and with the other coal we would have to clean fires during the run. That would necessitate another man as a laborer in the fire room. I made up the estimate on those two coals. There is a difference of eighty-five cents a ton between them. The labor and everything else taken into consideration was equal to about $1.10 a ton. One coal cost us $2.90 put in the boiler hole, and the other cost us $2.75. Our consumption of coal is about 12,000 tons a year. The figures presented by Mr. Leonard are just about on a par with the best coal we use, so that there is no doubt of the importance of that paper if Mr. Leonard is correct in his figures.

Mr. Perry, Providence.—Last autumn, about a year ago, our company having decided to build a station for themselves, being simply lessees of some property, and having determined on some radical changes in the arrangement of the steam plant, I thought it would be an excellent thing to put on some first-class steam engineers and ascertain not what we might do by fancy firing and jockeying, but just what we were doing in every day practice, and we selected for that purpose a gentleman very well known, who was trained under Mr. George H. Corliss, Mr. John T. Henthorn, a member of the American Society of Civil Engineers, and also of the Society of Steam Engineers, and asked him to determine what we were doing. We made no changes whatever. The result was a horse power for about sixty-two one-hundredths of a cent per hour. We used for fuel three parts of anthracite dust—not pea and dust—but simply the dust; no pea in it whatever; with one part of Pocahontas or an ordinary flat top coal. The result of that was about seventeen per cent. of ash. The gentleman from Baltimore spoke of fifty per cent., and that causes me to mention it—about sixteen or seventeen per cent. Our runs were good runs. We made forty-eight hour straight tests, running right through two days and two nights. Having some power business, and also some all day business, we run our stations twenty-four hours. The result was, which confirms the statement of Mr. Morrison, and also that of the gentleman from Philadelphia, about sixty-two to sixty-six one-hundredths of a cent per hour per horse power, and in the ash as I say about sixteen or seventeen per cent. in weight. Now, another very peculiar thing was that when we just concluded our first day's run, it came on raining and continued to rain for the whole twenty-four hours. So far as we were able to ascertain there was not a change of a single light. The same hours were run, the same number of lights were run and everything. It took apparently an average of twenty horse power more, the average of the twenty-four hours being, at the rate, I think, of about 142 horse power per hour. The second day, when it rained vigorously the whole twenty-four hours, if was just 162 horse power per hour for the twenty-four hours. We are using underwriters' wire all the way through. We have no special interruption from grounds except general leaks. The results of coal using and of oil burning seem to be about the same in the four stations—the Baltimore, the Philadelphia, the Mineapolis and the Providence stations.

Mr. Morrison—I would rather take the gentleman's statement than my guesswork. The gentleman has stated these as actual facts from tests?

Mr. Perry—Yes. Our engines were indicated every twenty minutes.

Mr. Morrison—Now in regard ro the ash?

Mr. Perry—As we intend to abandon the high speed engine, I should say the high pressure engine, we propose to run high speed the same as before, but we will use a compound engine and surface condenser). I wanted to know just what we were accomplishing with the high speed engine, and to ascertain what benefit we would derive from adopting the other engine. We shall go into the new station in the course of three or four months. We used an Armstrong & Sims engine. We have not yet fully decided what engine we are going to use, except that it will be a compound engine and surface condenser. We intend to arrange the station, so as to get a uniform load while operating the engine.

The President.—Did you include the cost of hauling refuse matter?

Mr. Perry.—No, sir; that is simply the net cost of the whole.

The President.—Then you can figure twenty per cent at least for that.

Mr. Perry.—It costs us twenty-eight cents a load to haul the ashes.

Prof. Vander Weyde spoke of some experiments in this city with the Clark dynamo, using a petroleum boiler. The oil cost $1 per barrel. He had calculated that at forty cents per barrel the petroleum would be cheaper than coal delivered at $3 50 per ton.

Mr. J. M. Pendleton.—In view of the discrepancy in the results I thought it might be interesting, referring to Mr. DeCamp's experience, to ask him whether he had ever heard of a petroleum fire burning the iron. I recollect many years ago that that was the complaint of many engineers, and it might be interesting to know if he ever heard of such a result being caused by the discontinuance of the use of coal as a fuel.

Prof. Vander Weyde.—I am glad Mr. Pendleton mentioned this, because in my observation for fourteen days in a petroleum furnace I saw that it suffered greatly, and I was expecting that if it was used for a protracted time it would give out.

Mr. DeCamp.—I never was able to learn anything about that. The last and most important effort made in that direction was in a shoe factory. The proprietor of that factory is a man of very large means, and rather a progressive man. He had very small facilities for coal storage, and he went to a very considerable expense, I judged, from the looks of his place, to put in the boilers and power suitable for his factory. I suppose he used fifty horse power. I do not know whether he ever published them or not, but he made statements very freely that he was saving a great deal of money in his fuel account. I do not think he ran more than six months when he abandoned it. Whether he found his boilers were burning out or not I never heard. I sent our engineer over to West Philadelphia at one time to look at an experimental plant put up there, but there was nothing that he learned at all satisfactory to himself or me either. Petroleum has been a drug on the market for a good many years, and at points where there is a great deal of power used, and it is a mystery to me how it can be very much cheaper. It seems to me that it would have been discovered sooner, because in certain parts of this State there is great trouble in getting rid of a certain class of petroleum. This is a statement I heard made by one of the officers of the Atlantic Refining Company. He made the proposition to me when we were hard pressed for steam at one of our stations. He offered to set up a locomotive boiler and put in oil to run it with, if we would go to the expense of putting it up. I figured over that for awhile and came to the conclusion I did not want to do it. I said to him: "If this is what you state it is, we will use it all over." We were then burning about twelve tons of coal a day at one of our stations, where we had every facility for handling oil. He said no, that that would not do. The Atlantic Refining Company is a very large concern. He said that that product of the oil which was adapted to that sort of firing was limited—that any demand for it for fuel purposes would put the price up so high as to make it prohibitory.

Prof. Vander Weyde.—Another illustration comes to my mind. In the city of Yonkers, at Hastings, there are gas works where petroleum was used to be converted into gas. They commenced with coal as fuel and after awhile they tried petroleum, and instructed by the experience I had had before with a dynamo, I told them I did not expect they would be satisfied. It turned out that way. They abandoned the use of petroleum and returned to the use of coal.

The President.—The hour is getting very near adjournment, and this is a very interesting subject. This question of burning out boilers with gas is all nonsense—with petroleum gas because it is identically the same as natural gas when it is properly burned under boilers, and there are boilers used with natural gas burning under them lasting longer than any with coal under them. In regard to the question of economy, the only thing I know about it is the statement of Mr. Leonard. Mr. Leonard is a practical man and is running a good sized station, and I have no doubt he will stand to the figures he has given. If these two points are such as to induce this association to have a committee to see if they can get a few more statistics on this thing, all right, But so far as the present discussion is concerued, it will have to close at this time.

Mr. Pendleton.—I beg to say in reply to Mr. Duncan's remark, that the action is different in burning gas under water and burning the petroleum in the manner spoken of by the gentleman who presented the paper. In one case you have the pure gas burning and in the other case you have a mixture of steam and hot air. I is a well-known chemical fact that at white heat, usually, steam is decomposed and the action upon the iron in the vicinity would be very different.

Mr. B. E. Sunny.—The company that I am connected with in Chicago has a station just south of the city limits there. Our coal cost us about $900 a month. we were burning it by the car load. The coal was wet at the mines; it was generally wet when it was weighed, and by the time the car got to us we found it short about twenty per cent. in weight, so we got about $700 worth of coal and paid $900 for it. On investigating this question of oil burning and corresponding with a large number of gentlemen who had some experience and who had been using oil burners for a long period, we found that in most instances the same results could be had out of three barrels of oil as out of a ton of ordinary bituminous coal. Our coal was costing us about $3 a ton. We could buy oil for sixty cents a barrel, so that the equivalent of one ton of coal would be $1.80, making a saving of $1.20 on a ton on coal. The saving that we expected to get of the change from coal to oil figures at the difference between $957 a month and $540 a month, and we make a saving of $45 for the salary of a coal passer, and $12 for hauling the coal in and taking care of the ashes. We expect to make in any event a saving of 35 per cent. although the figures guaranteed to us by the men who are handling oil burners, and the figures which are said to be reliable by men who have experimented would indicate that there will be a saving of forty per cent. With regard to Mr. Leonard's figures as to the economy, I should say that this fact ought to be taken into consideration, that the oil cost him perhaps two and a quarter cents a gallon in Minneapolis, while it cost a cent and three-quarters in Chicago. With regard to the burning out of the boilers, I found that that largely depended on whether you could distribute your flames all around the boiler. But there are several methods whereby you can distribute your flame so equally that there will be no effect on the boiler whatever, and you can get the same result out of the use of oil as you get from the use of coal with respect to the burning of the boilers.

Mr. Fred. DeLand, Chicago.—Mr. DeCamp asked how long the experiments at Minneapolis had been carried on. About nine months if I remember rightly. It was started the latter part of December or January. There is an experiment going on at New Orleans that will probably be interesting. It is the Louisiana Electric Light and Power Company. Morris J. Hart is the general manager, and he would probably give you gentlemen all the information you desire if you correspond with him. I was down there several months ago. It is stated he has the largest station in the world in capacity. He has a capacity of nearly 3,000 arc lights. The horse power, I believe, is over 1,200. He has been in the habit of purchasing his coal and having it shipped in barges down the Ohio and Mississippi rivers, and wheeled in barrels 400 yards from the dock into his station. He found that by using oil he could save thirty-one per cent, and he brought that about in this way: He purchased his oil, of course, from the Standard Oil Company. He sunk two large tanks in the ground, each containing 100,000 barrels of oil. The switch passes his station. The cars are brought down to the track, emptied there and taken back. The saving came about in the wheeling out of the ashes, the cost of hauling the coal from the barge to the fire room, the doing away with one or more firemen, and other little incidentals; but the net result at that time was the saving of thirty-one per cent over the cost of burning coal.

Mr. Colvin, Baltimore.—I was at that station a few days ago and the situation there is interesting. He has one battery of boilers running by petroleum and another running by coal right next to it.

DYE MARKET

Note—*Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures.*

The prices current will be found on page 50.

TUESDAY EVENING, Sept. 25, 1888.

The general market for dyes and dyestuffs, on the whole, is rather featureless. The various articles have been in fair demand and some instances, owing to an advance in raw materials, and in others to scarcity of spot supplies, values are quoted with a firmer feeling.

Albumen.—There is comparatively little doing in either imported or domestic blood, and the market is without feature. Quotations continue at 16@16½c for the former and 15@16c for the latter. Egg is in fair demand, with the market quoted steady at 60@65c.

Aniline Colors—Owing to the higher figures at which the raw materials are ruling, colors are very steady in tone, but without quotable change. The trading can be characterized as fair, and strictly of a jobbing character.

Alizarine is in fair request, but no special transactions can be recorded. Prices are steady and rule at 18@20½c, as to quality and quantity.

Bichromate of Potash—This article is without special feature. The business at hand has been fair in a jobbing way, with prices ruling at 10½c for 5 cask lots or over, with a higher figure named on smaller lots. Bichromate of soda has continued in moderate request, and is unchanged at 8½c for 5 cask lots or over.

Cochineal is quiet and unchanged, and our former figures are without alteration, namely, 30c for Teneriffe silver, 29@30c for black, and 33c for gray black.

Cutch—A slightly better feeling is apparent, which is due, it is said, to the fact that supplies are now in much stronger hands. Sales of some 3,000 bales are reported at private terms, the price being a shade under quotations, which are 5¼@5¾c for Diamond S. M. on spot no transactions in parcels to arrive reported.

Divi Divi—This article has ruled exceedingly quiet, and we are not apprised of a single transaction, buyers seemingly having no use for supplies. Low offers, in the neighborhood of $35 have been made, as a matter of speculation, but they have not as yet resulted in any business.

Dyewoods.—The market for stickwood is very steady, and there appears to be more inquiry. Manufacturers are beginning to look around for supplies and offers have been made by them, but the importers have refused the figures offered, and are waiting for better prices to prevail. A meeting of the manufacturers was held last week, and it is said that they agreed not to offer over $28 for wood, but higher offers than this have been made, however. It is also said that Gonaives wood cannot be obtained to-day below $34.50, and all indications point to a short supply of wood. Part of the damaged cargo, which has been lying on the dock, has been disposed of at a figure in the neighborhood of $25, which shows the tendency of the market when the highest figure which has been offered all along has been $22. About 200 tons Gonaives wood on dock has been sold. It is understood that a contract for a cargo of Gonaives, to arrive, has been made at $34 50. Extracts are about in the same position as reported last week. A moderate business has been done, but there is still an absence of activity. No change in the ruling figures can be noted, for 51° extract, 6¼@6¾c is quoted, with 42° at 5¼@5½c. Imported and the highest grade domestic 51° continues to rule at 10c. fustic at 7½@9½c for 51° according to quality. Solid logwood is held at 10¼@11½c. Sumac is quotable at 3¼@3¾c for domestic liquid 51° for imported the prices are very much unsettled and in buyers' favor. Hypernic at 12½@14c for 51° and 20@24c for solid.

Gambier—The market continues steady, and there have been transactions on spot, with buyers seemingly confining themselves to dealing in spot supplies, as no trading in parcels to arrive, can be noted. Sales of 2000 bales spot are reported at quotations, which are 5⅝@5¾c; for shipment 5¼c is quoted.

Indigo.—Trading has been entirely in a jobbing way, both for Bengals and Guatamalas, and we are unable to note any feature of interest beyond the fact that advices recently received are to the effect that copious rains have fallen in the growing district, but no particulars are given as to the effect it has had on the crop. Prices continue as follows: Guatamalas are ruling at 70@85c. while Bengals are held at 78@85c for low grades, $1 10@1 20 for medium, and $1 25@1 40 for the best kinds. The market continues to be quoted steady at these prices. Madras is in moderate request at 35@55c.

Nutgalls.—China galls are quoted with considerable firmness and the market is very strong. Stocks on spot are light, and all nearby arrivals have been disposed of. Quotations continue nominal at 16@16½c. It is said that the remaining stock in London is of inferior quality, all the good parcels having been taken. Aleppos are also stronger and are quoted somewhat higher, this has been owing to the firm and higher advices which have been received from the other side. There is quite some little inquiry, with stocks rather limited. Quotations are now 15½@16.

Prussiate of Potash.—Both yellow and red have been selling in a small way, and the market is wholly without feature. The former is ruling at our previous quotation of 19c and for the latter 45c is asked.

Sumac is slightly better in tone, but there has been little increase in the trading. Sales in a jobbing way have been reported at figures in the neighborhood of $60, which price represents the market for Sicily. For Virginia $37½ are the asking rates. For shipment the market is stronger and higher, in consequence of the advance in freight rates. Values are now quoted at $58.

Tin Crystals are firmer and higher, owing to the advance in pig tin, and 18½@20c are now the ruling figures. The demand has been very fair.

Manufacture of Artificial Ultramarine.

Authorative evidence is given that the discovery of the manufacture of artificial ultramarine was made by J. B. Guimet; he first obtained it on a small scale in 1826, in 1828 he was was awarded the prize of 6,000 fr., offered by the French "Societe d'Engouragement" for his discovery, and in 1831 he founded the still existing manufactory for his product at Fleurien-sur-Saone. Gmeliu recognized the possibility of producing artificial ultramarine in 1827, and in 1828 succeeded in obtaining it on a laboratory scale. From Guimet's own notes it is shown that he had already tried making it on the large scale in October 1826,so that the priority of his claim to the discovery is clearly established.

In the account given by the authors of the manufacture of artificial ultramarine the following points are of interest:—

The chemical composition of the green and blue varieties appears to be identical, the change from green to blue is due to oxidation, and there is not as much as 1 per cent. difference in the proportions of any of the constituents of the two products. In the transformation from blue to red, which is effected by prolonged burning, a change in chemical composition takes place. The lye extracted from the coloring matter contains alumina in a soluble form, whilst the propertions of sulphur and of soda contained in the lyes appear almost constant, The formation of red ultramarine is not due to the presence of an excess of silica as often supposed, for if the red product, when it contains an excess of silica, be lixiviated and then heated with carbon, it is transformed into the blue variety, and the two products contain the same proportions both of silica and of alumina. The change is due to oxidation, and whilst sulphurous acid is first formed in the burning, sulphuric acid results afterwards,and this acid favors the production of the red ultramarine. The proportion of alumina employed in making ultramarine determines the shade of blue obtained; the proportions of soda and of silica are practically constant, about 20 per cent. of the former and 37—38 per cent. of the latter. It appears that varying amounts of alumina and of sulphur do not prevent the formation of ultramarine as a product of definite composition. A series of ultramarines has been obtained by E. Guimet by substituting selenium and tellurium for sulphur on the one hand, and by replacing the soda by other alkalis, and by the alkaline earths on the other. The products thus obtained present the same reactions as ordinary ultramarine. the colors obtained by using selenium are brown,purple-red, rose-color, and finally white; with tellurium yellow, green grey, and white are successfully formed. Potash lime, &c.. yield colorless ultramarines. A description of the manufactory at Fleurein is given, where as much as one-tenth of the total annual production in Europe is said to be made.

Preparation of Starch Solution for Iodometric Analysis.

BY G. GASTINE.

As is well known, a starch solution rapidly undergoes decomposition. To preserve it as an indicator an addition of zinc chloride, salicylic acid, &c is made. These bodies produce the desired effects, but they offer many disadvantages, to which attention has been called. Sodium chloride is still the ordinarily employed antiseptic, although it is effective, but a short time.

The material which I used is based upon the antiseptic properties of mercury salts. I prepare the starch soluion in the following manner:

5 gms. starch and 0·01 gm. red mercuric iodide are rubbed together, and mixed with a little water. The mixture is then poured into 1 liter boiling water, and after settling, the clear supernatant liquid is poured off.

I have used a starch solution prepared in this way for more than a year, and although the bottle in which it is kept, was never placed in a cool place, and though it stood uncorked on several occasions, the reagent is still as delicate, as on the day it was prepared.

The indicator, thus prepared, may be used in various volumetric determinations,in which solutions of iodide are employed. The very small quantity of mercury salt is absolutely without any effect, even when the solutions contain sulphides or hydrogen sulphide.

The preservative might also be used with advantage, for many vegetable and animal coloring matters, because their decomposition is effected in most cases by microscopic organisms. Starch paste, which turns sour so very rapidly, will keep until perfectly dry, when an exceedingly small quantity of a mercury salt, especially the iodide, has been added in its preparation.—*Chem. Techn. Ztg.*

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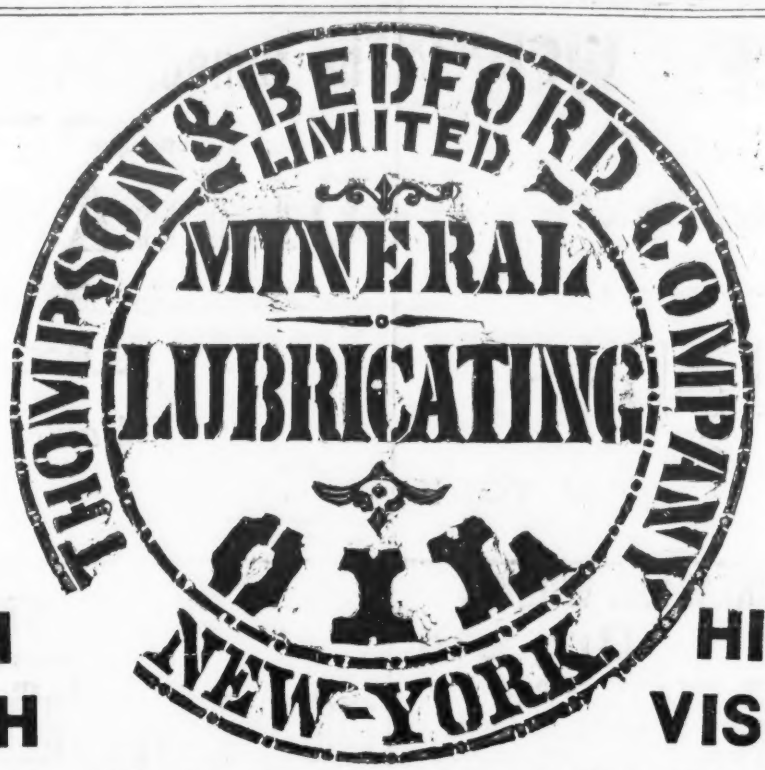

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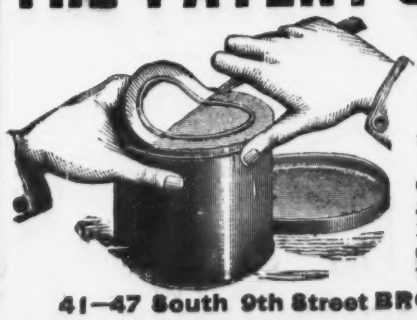
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